One-Net

Digital Emergency Alert System Encoder/Decoder

Users Manual

Model R189
Version 1.8-5
22410

Monroe Electronics, Inc.
100 Housel Avenue
Lyndonville, NY 14098

FCC Information

FCC ID: R8VDASDEC-1EN
The DASDEC is fully compliant with FCC Part 11.
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

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1. Getting Started with the One-Net

1.1. Introduction

The One-Net is an Emergency Alert System (EAS) Digital Encoder/Decoder platform. The One-Net is built with the latest digital PC computer technology. The One-Net encoding/decoding technology is software based, and is built upon the Linux OS. The One-Net core hardware is a standard PC motherboard and digital audio sound cards. The One-Net is easy to upgrade, not requiring custom ROMS. The One-Net also exploits the benefits of modern network technology. It is fully operable over a LAN using secure network protocols. In addition, it supports existing methods of device control using a serial port. The One-Net is representative of the continuing advance of PC hardware into technological areas that only a few years ago required custom hardware.

1.2. Features

The One-Net provides a number of features for easier management of FCC EAS requirements. The One-Net has been designed to improve the EAS system for Radio and TV broadcasters, Cable TV Headend facilities, LP1 and LP2 designated stations, and Public Safety and Emergency Service personnel.

One-Net hardware specs

- 2x20 backlit LCD display for monitoring unit and decoder status
- Operational status LED
- Alert decoding/output LED
- Cool running, low power CPU
- Ethernet port for network access
- Base unit has 3 “F” connector antenna inputs for up to 3 internal AM/FM/ NOAA radios
- Hard drive or flash drive options
- 3.5mm mini-jack stereo audio output port
- 3.5mm mini-jack microphone input
- 1 RS-232 Serial port, supports numerous existing EAS character generator protocols.
- 1 parallel port will support a variety of printers
- 2 USB ports will support extra serial ports, printers, modems, wireless Ethernet, flash drives, etc.
- VGA out for console or desktop GUI interface
- One NTSC/PAL video output

Continued on next page

- Standard PS/2 keyboard/mouse ports
- Supports PCI expansion card, use with audio card for scanning two more audio inputs
- Internal speaker for monitoring
- Can be safely powered off/on without disk damage
- Optional GPI input/output and balanced audio output module.

One-Net general software features/specs

- Linux 2.4.24 operating system
- Built in multi-user, password protected Web interface for control/status/monitoring of all activity.
- Web interface supports SSL.
- KDE desktop available via directly connected keyboard/mouse/VGA monitor
- Supports sending email for decoded/forwarded/originated alerts
- Support SMS pager output using USB modem
- Socket based network interface for monitoring/control
- Supports WiFi wireless networking via USB
- Supports a variety of printers via USB/Parallel
- Supports operational status indication via LED and LCD
- Web interface for software update
- Support for optional GPI input to trigger actions and optional GPI output during alerts.
- Supports DVS-168 for DNCS (SA) (Optional).
- Supports DVS 644 Standard (SCTE 18) (Optional).

One-Net decoder features

- Decodes FCC EAS codes and NOAA SAME codes.
- Automatic audio level correction for reliable operation.
- Supports fully unattended operation.
- Supports manual and selectable automatic alert auto-forwarding.
- Easy to use web interface for configuration of auto-forwarding locations and codes.
- Web interface for easy review and print logs of active and expired decoded/forwarded alerts.
- Stores user configurable number of previous alerts.
- Supports multiple simultaneous active decoded alerts.
- Configurable audio output port selection for alert forwarding.
- Decoding status displayed on unit LCD and LED.
- Stores each audio section of EAS alerts into digital files.
- Supports several protocols for alert audio playback and alert translation data transfer
- Will support scanning up to six input channels (depends on hardware expansion)

One-Net Encoder features

- Easy to use Web interface for creating and sending FCC EAS alerts.
- Web interface makes it easy to configure commonly used locations and alert types.
- Web interface makes it easy to review and print logs of active and expired originated alerts.
- All audio sections of encoded alerts are stored into separate digital audio files.
- Stores user configurable number of previous originated alerts.
- Supports multiple simultaneous active originated alerts.
- Configurable audio output port selection for originated alerts
- Automatic randomized Weekly test generation.
- User programmable length for FCC EAS 853 Hz and 960 Hz Two-tone Attention Signal.
- Web interface upload feature for digital audio files facilitates encoding the EAS audio portions.
- Supports direct recording of EAS alert audio into digital files.
- Audio output level control via web interface.

1.3. User Manual

Generally, One-Net screens are self-explanatory. The manual has a section for each screen, which reviews information on the screens and provides additional information. The index at the back will help you locate which screen has information you are looking for.

2. The Emergency Alert System

2.1. Purpose

According to the FCC, "The EAS is designed to provide the President with a means to address the American people in the event of a national emergency. Through the EAS, the President would have access to thousands of broadcast stations, cable systems and participating satellite programmers to transmit a message to the public. The EAS and its predecessors, CONELRAD and the Emergency Broadcast System (EBS), have never been activated for this purpose. But beginning in 1963, the President permitted state and local level emergency information to be transmitted using the EBS."

However, the EAS system is used for much more than to support a method of communication that has never been (and hopefully never will be) used. The EAS system provides state and local officials with a method to quickly send out important local emergency information targeted to a specific area. This includes weather alerts as well as local emergency alerts such as child abductions and disasters. The EAS system also runs test alerts on a weekly and monthly basis in order to insure operability.

2.2. Operation

The EAS system digitally encodes data into audible audio in order to distribute messages. This information can be sent out through a broadcast station and cable system. The EAS digital signal uses the same encoding employed by the National Weather Service (NWS) for weather alerts broadcast over NOAA Weather Radio (NWR). Broadcasters and cable operators can decode NWR alerts and then retransmit NWS weather warning messages almost immediately to their audiences. With the proper equipment and setup, EAS alerts can be handled automatically, making EAS information useful for unattended stations. Other specially equipped consumer products, built into some televisions, radios, pagers and other devices, can decode user selectable EAS messages.

The One-Net is designed to facilitate the management side of encoding and decoding EAS alerts within cable and broadcast facilities. It is especially easy to use since it is IP addressable and accessible over a LAN.

2.3. Management

The FCC designed the EAS system, working in cooperation with the broadcast, cable, emergency management, alerting equipment industry, the National Weather Service (NWS) and the Federal Emergency Management Administration (FEMA).

The FCC provides information to broadcasters, cable system operators, and other participants in the EAS regarding the requirements of this emergency system. Additionally, the FCC ensures that EAS state and local plans developed by industry conform to the FCC EAS rules and regulations and enhance the national level EAS structure.

NWS provides emergency weather information used to alert the public of dangerous conditions. Over seventy percent of all EAS and EBS activations were a result of natural disasters and were weather related. Linking NOAA Weather Radio digital signaling with the EAS digital signaling will help NWS save lives by reaching more people with timely, site-specific weather warnings.

FEMA provides direction for state and local emergency planning officials to plan and implement their roles in the EAS.

2.4. Your responsibility as a broadcaster

Your One-Net Encoder/Decoder allows your facility to decode EAS alerts originated from alert sources in your area. The sources are local radio stations. These stations can be forwarding alerts received from a web of broadcasters, or originating alerts if designated as a primary source. To meet minimum requirements of the FCC, you must send randomized weekly tests, forward monthly tests, and forward National alerts. Your state and local EAS plan may also impose other requirements.

A good source of information is the EAS website at http://www.fcc.gov/eb/eas/ . The FCC provides handbooks in Adobe PDF format for AM and FM radio, for TV and for Cable TV.

2.5. Future of EAS and One-Net

As of this printing (Summer 2005), the current EAS system has been in place for about ten years. While little has changed in the core EAS system in that time, an explosion of digital technology has occurred, especially in communications and with the enormous evolution of the Internet. New methods of emergency management and alerting are being built to take advantage of the digital mediums. But the EAS system will be in place for at least several more years. The new digital technologies do not replace the EAS system; they augment the system. The EAS system provides an important level of redundant backup, using reliable radio broadcast, with communication coverage for more of the United States than any other medium.

The EAS system is also evolving, with significant improvements in process. Currently the One-Net supports both DVS-168 for DNCS (SA) and the new DVS 644 (SCTE-18) Digital EAS Message for Cable, including multicasting. Future bridges between EAS systems and the new digital alerting and emergency management systems will be possible with Monroe's new digital LAN based EAS encoder/decoder technology. **The One-Net provides a powerful and yet economical LAN based digital platform for this bridge to the future of EAS**.

3. One-Net Hardware and Setup

3.1. Introduction

The One-Net is a 2U rack mounted unit built with the latest digital PC computer technology. It is an embedded PC platform. The front of the One-Net, pictured below, provides a very simple face for a very sophisticated platform. The One-Net exposes the PC motherboard connectors and single PCI slot in the rear of the unit.

3.2. Front Panel

The front panel features a 2x20 character backlit LCD that indicates power-on, and real-time device status. There are also two LED's - one red, one green - for indicating specific types of status. The select switch provides the ability to activate a Required Weekly Test from the front panel. A front panel speaker allows the user to verify the quality of audio signals.

3.2.1. LCD

The backlit green LCD provides real-time status of the One-Net. The LCD is used for numerous purposes, all indicating system and/or encoding/ decoding and active alert status. Here is a list of information available from the LCD.

- When the One-Net is powered on, the LCD will light up, indicating power-on state.
- While the One-Net is booting, the LCD will move through a few display states, eventually arriving at the ready state where the first line will display **One-Net: ON** followed by a crawling display showing the programmed unit name, the software version number and the IP address.
- During decoding of an incoming alert, the LCD will display information about the source and the stage of the decoding.

While decoded, forwarded or originated alerts are active on the One-Net, the top line will repeat displaying pertinent identification for each active alert.

3.2.2. Status LED's

The One-Net's two LED's are used for a variety of status indications, making it easy to see at a glance certain important system states.

System Status - Green LED

- When the One-Net is first powered on, the green LED is dark.
- When the booting process advances far enough, the green LED begins to blink.
- When the One-Net nears a ready state, the green LED blinks more rapidly. When the One-Net is ready, the green LED light is on solid. A solid green LED indicates the One-Net is operational.
- If the green LED starts blinking, the One-Net server has become non-operational. This can happen during software upgrades.

Alert status - Red LED

- When the One-Net is first powered on, the red LED is dark.
- After the One-Net becomes operational, in a ready state, with the green LED solid, the red LED indicates decoding and alert sending status.
- If the red LED is blinking quickly, with pauses, the One-Net server is decoding an incoming alert. If the red LED is solid, the One-Net is sending an EAS alert.

3.3. Back Panel Connectors

The back of the One-Net provides all of the connection ports. In addition to the standard PS/2 mouse and keyboard and VGA monitor ports, the One-Net provides an RS-232 serial port (COM1), a parallel port, an RJ45 LAN port, two USB ports, main audio line in, out, and microphone jacks, auxiliary audio line in, out, and microphone jacks, and a TV out connector (Yellow RCA jack).

3.4. Audio Wiring

Audio wiring on the One-Net has some flexibility due to the option of adding a second sound card and because of built-in software control. Here are a few rules:

- EAS decoder input always uses the audio line inputs.
- Every line input can be used for decoding audio provided from an external receiver or EAS decoder.
- Every line input supports two (2) EAS decoders. The left side of the input is decoded separately from the right side. So two line inputs provide four (4) EAS decoders.
- EAS alerts are selectively played out of the analog line output ports. Software is used to select which ports are used for alert origination and forwarding.
- The main microphone input is used to record EAS audio messages.

For decoding, each side of the stereo input of any audio input can be selectively used as a single decoder source. In other words, one stereo input supports two EAS decoders. A dual RCA to 3.5 mm jack input adapter can be used to connect two separate mono input signals to a One-Net line input jack.

For alert encoding an audio cable is run from a software selected 3.5 mm line output jack into your systems alert audio wiring. Only analog audio output is supported. NOTE: The SPDIF digital audio output port is not used.

3.5. Video Wiring

The video output provides an NTSC analog composite video signal through the yellow RCA jack. This will provide a details page during alert forwarding and/or alert origination.

3.6. GPIO Output relays

The One-Net provides two General Purpose Output relays and two General Purpose inputs. During an alert origination or forwarding, the GPO relay 1 is closed for the duration of the alert audio portion of the alert, and GPO relay 2 can be programmed to close during the audio or video portion of the alert.

4. One-Net Operation

4.1. Power Up, User Interface and Initial Setup

The One-Net uses a standard AC power cord. It uses a single power toggle switch to power on. NOTE: Power is supplied to the unit electronics while the external cord is plugged and supplied with power even if the unit is powered off.

The One-Net can present graphical user interface in one of three ways. The first is using a VGA monitor, keyboard and mouse connected to the correct ports on the back of the One-Net. The keyboard and mouse should be connected prior to power on. The VGA monitor can be connected at any time.

The other two ways to get a user interface are via a network connection using a Web browser on a remote host. The One-Net is given a default static network address of 192.168.0.200. The One-Net can be connected directly to another computer's Ethernet port using a network crossover cable, or can be connected to a hub or router using a standard network cable. Network cabling may be done at any time.

NOTE: the One-Net must be fully booted before it can provide a network connection.

Once the One-Net is correctly cabled, power up by pressing the power switch or rocker on the upper right corner of the rear panel. The LCD screen will light up if power is applied. Allow the One-Net time to boot. The LCD screen and the green system status LED will indicate when the One-Net is ready.

4.1.1. Using a VGA monitor, keyboard, and mouse with a One-Net

To configure the One-Net:

- Connect the VGA monitor, keyboard and mouse connected to the correct ports on the back of the One-Net.
- Then power up and wait for the One-Net to boot and become fully operational. Make sure the VGA monitor is powered on.
- You will be presented with a login prompt on the VGA monitor. Type in the user name of "root" (without parenthesis). The default password is "dasdec1".
- After login, the One-Net presents a shell prompt.
- The typical task at this point is to launch a desktop user interface. Type the command 'startx' and then press the Enter key. This will run the KDE desktop windowing user interface.

- Wait for the desktop to fully launch. Once the desktop is ready, run the provided One-Net browser app by clicking the icon labeled One-Net Web Interface. This launches a browser, which will automatically access the One-Net web server Login page. Follow the instructions for Section 4.2 below for logging into the One-Net using the Web login page. Everything you will need to do to setup the One-Net for operation and remote network access will be available from within the Web interface. There is a built in administrative user (Admin) for the One-Net Web Interface. The default password for Admin is “dasdec”.
- Follow the directions in Section 5 for One-Net network setup and Decoder/Encoder setup.
- Note: You may also lock the desktop from other users by selecting the proper lock menu item from the right mouse button menu popup screen.
- After you are finished with the One-Net KDE desktop, logout using the right mouse button popup screen to select "Logout". After a few seconds, the desktop will exit and you will be back at the shell prompt.
- Once configured, the One-Net is designed to operate “headless” (without monitor, keyboard, and mouse). The preferable means of One-Net access is via a Web browser from another computer over the LAN. In fact, while the One-Net can operate with the KDE desktop enabled, the KDE desktop consumes much memory and extra CPU speed. The provided KDE desktop applications are meant as conveniences and tools during One-Net configuration. These should not be used indiscriminately during normal One-Net operation. Using applications from the desktop during normal operation can interfere with the reliable performance of the decoder software.

4.1.2. Directly connecting a networked host computer

Connect a CAT-5 network crossover cable to the RJ45 port at the back of the One-Net and to the RJ45 port of the network interface card (NIC) of a standalone PC or notebook computer. Configure the standalone PC to use the static IP address 192.168.0.201 with a net mask of 255.255.0.0. After One-Net power up and booting, it can be accessed via a Web browser on the host computer.

Now launch a Web browser application and direct the URL to http:/192.168.0.200/. The One-Net will provide a gateway page and quickly redirect to the One-Net login page. Follow the instructions for Section 4.2 below for logging into the One-Net using the Web login page. After login, the One-Net is ready to use, although typically it will be desirable to reconfigure the network address.

4.1.3. LAN connection with a networked host computer

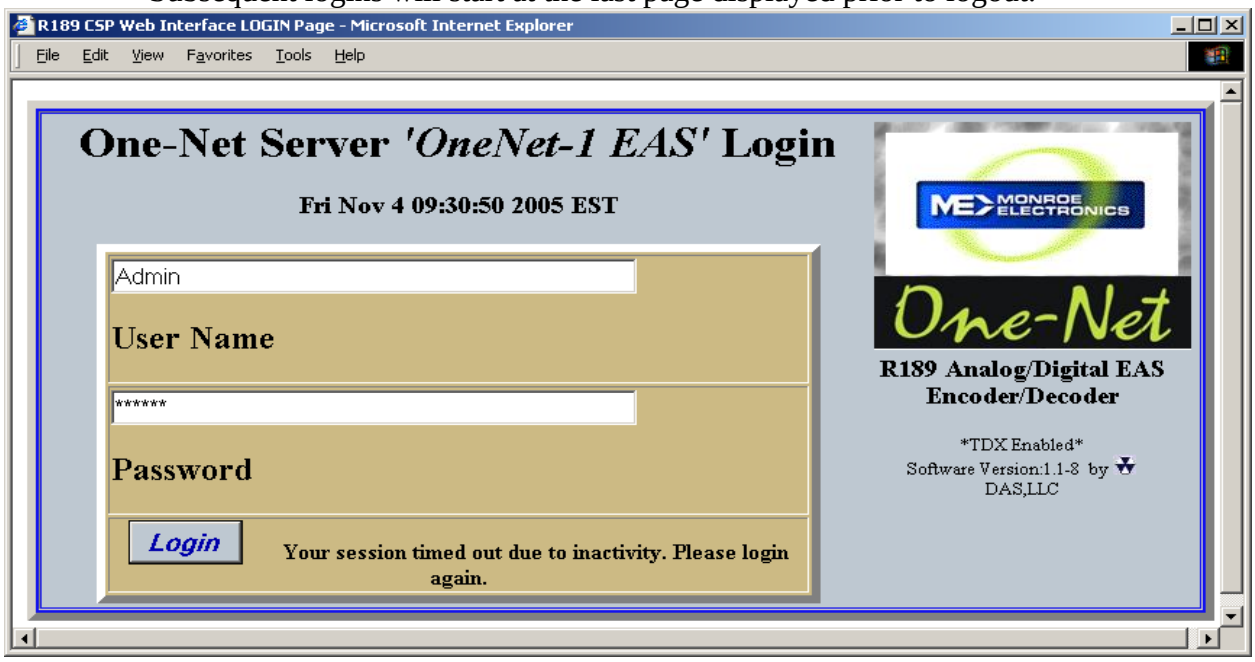
Connect a standard CAT-5 network cable from the RJ45 port at the back of the One-Net into a routing hub or other network-switching device. You will likely need assistance from a network administrator to insure the One-Net's default network address of 192.168.0.200 will be visible on the network, or will not clash with an existing node. Once the One-Net is powered up, booted, and operational, it can be accessed via a Web browser from any remote computer on the LAN routed to see the address 192.168.0.200. Follow the instructions for Section 4.2 below for logging into the One-Net using the Web login page. After login, the One-Net is ready to use, although typically it will be desirable to reconfigure the network address.

4.2. Web Server Login

When the One-Net successfully connects for a Web session, it will present the following page in the Web browser.

Type "Admin" (no quotes) as the default user name, and "dasdec" (again, without quotes) as the password. Press the left mouse button over the Login button. With the correct user name and password, the One-Net will login. If the user or password is incorrect, the One-Net will display a message indicating the problem. If the One-Net is left unattended for 10 minutes, it will automatically logout. A message indicating session timeout will be displayed on the login screen.

At your first login, One-Net will show the **Setup** > **Server** page in your web browser. Subsequent logins will start at the last page displayed prior to logout.



The One-Net Web Interface is organized as a rather standard hierarchical set of related interfaces. Every page presents a standard header area with basic user session information and a set of four (4) major tabbed page groups. The page groups are Encoder, Decoder, Setup, and Server. For a decoder-only One-Net, the Encoder page group is omitted. Each major group has a set of sub-options that appear as "radio" button selections under the group tab (such as the Server sub-option page under Setup). Only one of these sub-options may be selected at a time. Under a sub-option either a single page or another set of related tabbed pages will be presented. To navigate the One-Net, first select the major group tab, then select the sub option under the tab. When moving from major group to major group, such as from Setup to Server and back to Setup, the last selected sub option is remembered. To refresh the current page, reelect

IMPORTANT NOTE: In general, DO NOT use the back button or the Refresh/Reload buttons on your browser to go back to pages visited earlier. Although this often works, it can provide misleading, out-of -date server state information, and in some cases can result in unintended actions being preformed. Instead, always use the provided One-Net navigation buttons.

This manual will present descriptions and screen shots from each of these groups and sub-options.

5. SETUP

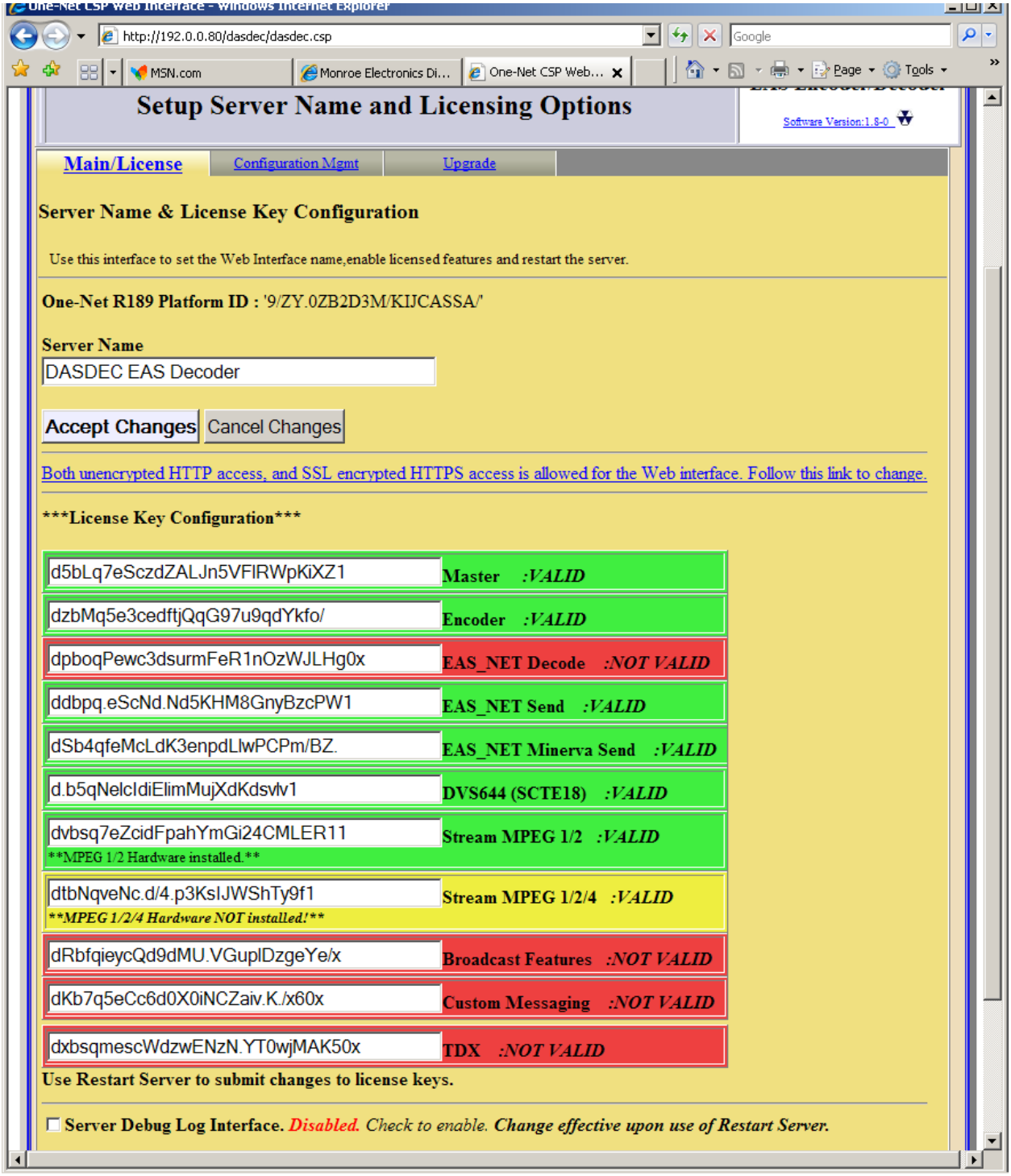
The **SETUP** pages present the One-Net server configuration sub-options. These are, in left to right order:

Server Encoder Decoder Audio Video/CG Net Alerts Email GPIO. Printer Alert Storage Network Time Users.

At the first login, before the One-Net can be used, the server must be configured. The recommended order is to first set up the Server, then Network, Time, Users, Email, Audio, Video/CG, Decoder, Encoder. The subsequent chapters review information on the screens and provide additional information.

5.1. Setup > Server: Server Configuration

If the web page displayed is not **Setup > Server**, select this page using the tab at the top of the web page. There are three tabbed sections: Main License, Configuration Mgmt, and Upgrade.


One-Net CSP Web Interface - Windows Internet Explorer
http://192.0.0.80/dasdec/dasdec.csp
Google
MSN.com
Monroe Electronics Di...
One-Net CSP Web...
Page
Tools
Setup Server Name and Licensing Options
Software Version:1.8-0
Main/License
Configuration Mgmt
Upgrade
Server Name & License Key Configuration
Use this interface to set the Web Interface name,enable licensed features and restart the server.
One-Net R189 Platform ID : '9/ZY.0ZB2D3M/KIJCASSA/'
Server Name
DASDEC EAS Decoder
Accept Changes
Cancel Changes
Both unencrypted HTTP access, and SSL encrypted HTTPS access is allowed for the Web interface. Follow this link to change.
License Key Configuration
d5bLq7eSczdZALJn5VFlRWpKiXZ1 Master :VALID
dzbMq5e3cedftjQqG97u9qdYkfo/ Encoder :VALID
dpboqPewc3dsurmFeR1nOzWJLHg0x EAS_NET Decode :NOT VALID
ddbpq.eScNd.Nd5KHM8GnyBzcPW1 EAS_NET Send :VALID
dSb4qfeMcLdK3enpdLlwPCPm/BZ. EAS_NET Minerva Send :VALID
d.b5qNelcIdiElimMujXdKdsvlv1 DVS644 (SCTE18) :VALID
dvbsq7eZcidFpahYmGi24CMLER11 Stream MPEG 1/2 :VALID
MPEG 1/2 Hardware installed.
dtbNqveNc.d/4.p3KsIJWShTy9f1 Stream MPEG 1/2/4 :VALID
MPEG 1/2/4 Hardware NOT installed!
dRbfqieycQd9dMU.VGuplDzgeYe/x Broadcast Features :NOT VALID
dKb7q5eCc6d0X0iNCZaiv.K./x60x Custom Messaging :NOT VALID
dxbsqmescWdzwENzN.YT0wjMAK50x TDX :NOT VALID
Use Restart Server to submit changes to license keys.
Server Debug Log Interface. Disabled. Check to enable. Change effective upon use of Restart Server.

NOTE: The Restart Server? Button on this page can be clicked to restart the One-Net server software. This is used during License Key configuration. It can also be used at any time the One-Net appears to be functioning incorrectly. A confirmation page is displayed before the restart is actually run. All logged in users will be forced out of the system and will be required to log back in. Decoding will be temporarily paused during the restart. This is not a system reboot, but nonetheless: USE THIS OPTION WITH CARE!

5.1.1. Main/License

One-Net ID
This is a unique identifier for the actual One-Net hardware. This is different for every One-Net. It cannot be edited.

Server Name
The One-Net server name can be edited. If changes are made to this value, save them by clicking Accept Changes.

License Key Configuration

Master
The Master license key is preconfigured.

To enable any of the following options in the future, not originally purchased with this unit, follow these steps:

- Enter the key, obtained from Monroe Electronics, into the box to the left of the option.
- Click on the "Restart Server" button to enable the option.
- After the Server restarts, Log back into the unit and the option you just entered the key for should have changed from red to green indicating it has been enabled.

Encoder
A second product key protects the Encoder functionality. Once a valid Encoder key has been enabled, you can configure and use the One-Net encoder.

EAS_Net Decode
This option is used when a One-Net is receiving alert information from another One-Net.

EAS_Net Send
This option is used in the IPTV market or if a One-Net is sending alert information to another One-Net.

EAS_Net Minerva Send
This option is used when the One-Net is communicating to Minerva middleware.

DVS168
This option unlocks EAS alert network forwarding via the SCTE DVS168 standard.

Broadcast Features
This option unlocks features used in the Broadcast TV market.

DVS644 (SCTE-18)
This option unlocks EAS alert network forwarding via the DVS644 (SCTE 18) standard.

Stream MPEG 1/2
This option unlocks EAS alert encoding into an MPEG stream. This option can only be enabled in units equipped with the MPEG-2 card hardware option.

Stream MPEG 1/2/4
This option unlocks EAS alert encoding into an MPEG stream. This option can only be enabled in units equipped with the MPEG-4 card hardware option.

Custom Messaging
This option unlocks the Custom Messaging feature. When enabled a license must also be provided for the voice for the text to voice feature.

TDX
This option unlocks the EAS Textual Data eXchange option. TDX allows extra details to be encoded into alert messages.

5.1.2. Server Debug Log Interface

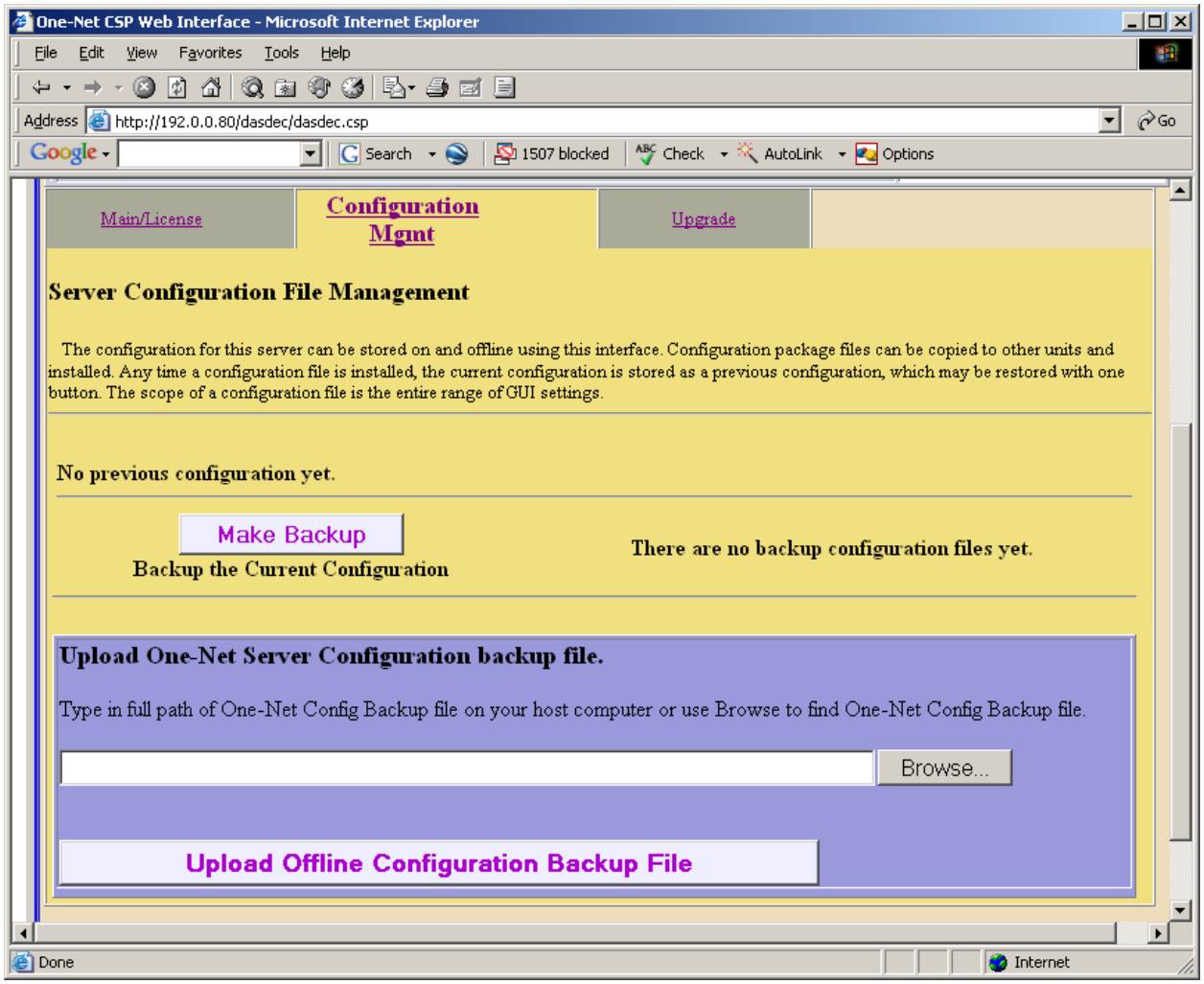
Placing a check mark in this box enables a tool that is used for Factory troubleshooting.

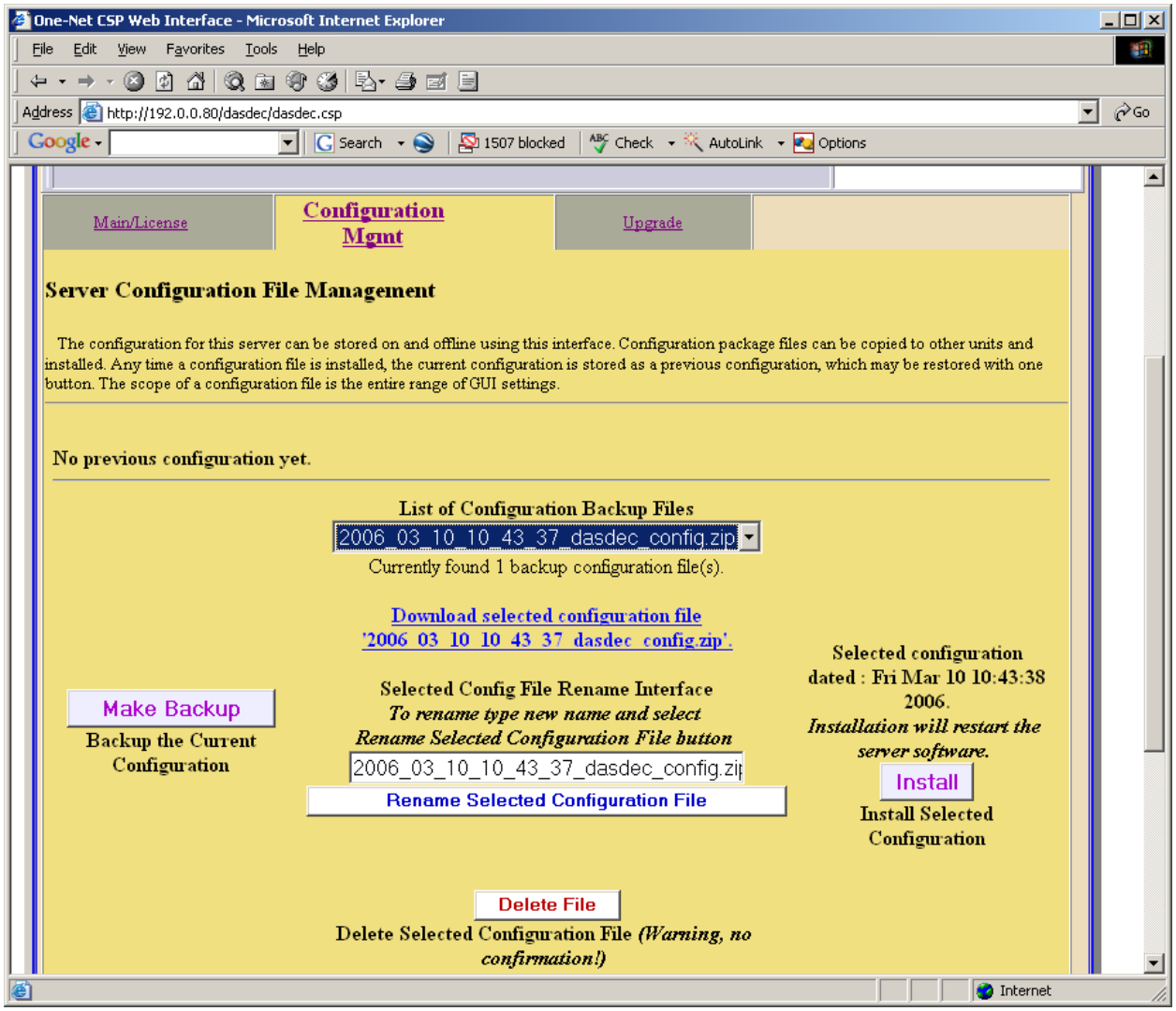
Configuration Mgmt

This page is used to backup or restore the configuration of your One-Net. A copy of the configuration can be stored in another location and can even be uploaded into another One-Net.

Make Backup

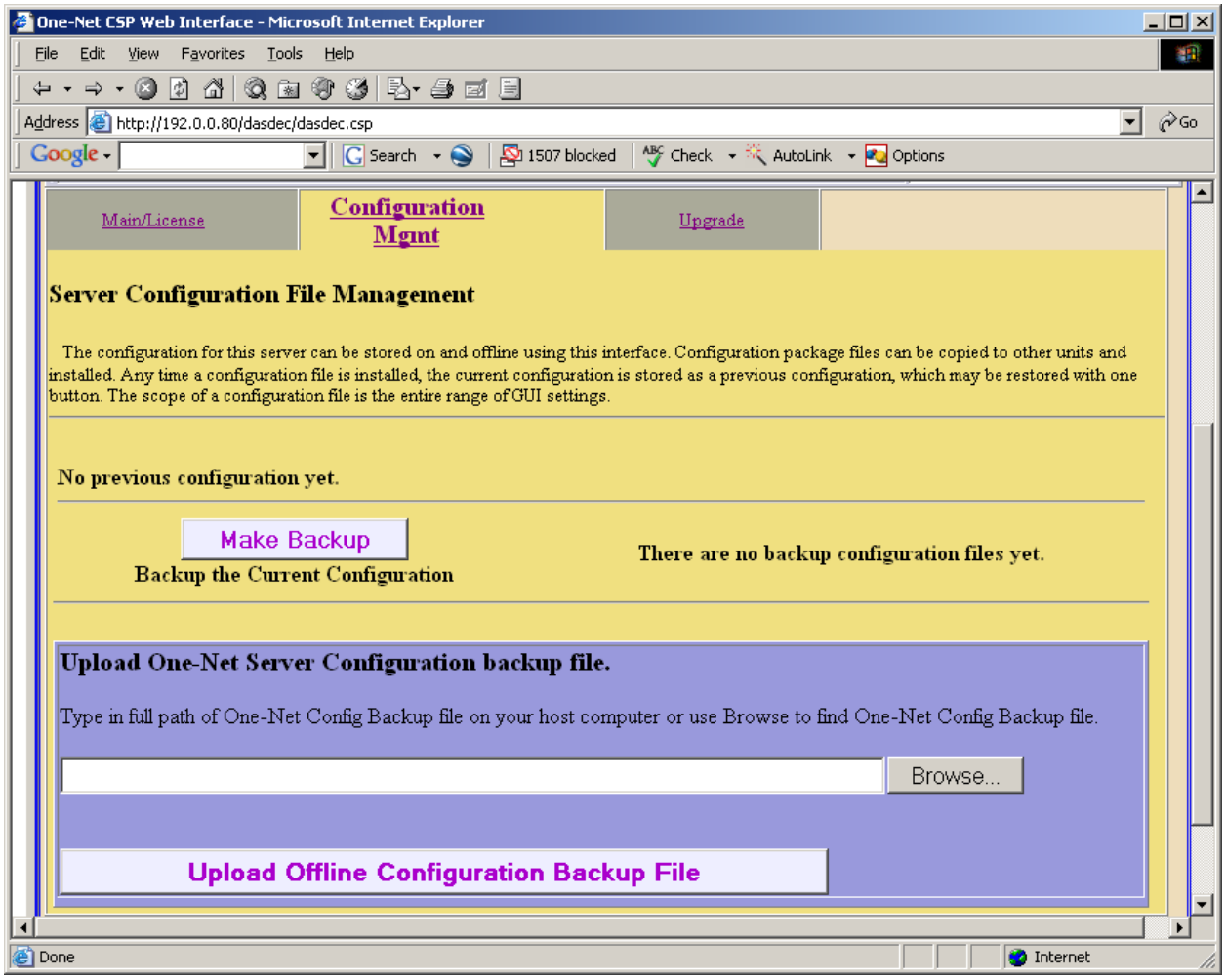
Clicking on this button will start the process of creating a configuration backup. This backup will save all of your configuration settings, except for the Setup Network page, to a file that will be stored in your One-Net. This file can be stored in another location by clicking on " Download selected configuration file". This configuration file can be store in a safe place and can be used to restore your settings in the One-net.


One-Net CSP Web Interface - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://192.0.0.80/dasdec/dasdec.csp
Main/License
Configuration Mgmt
Upgrade
Server Configuration File Management
The configuration for this server can be stored on and offline using this interface. Configuration package files can be copied to other units and installed. Any time a configuration file is installed, the current configuration is stored as a previous configuration, which may be restored with one button. The scope of a configuration file is the entire range of GUI settings.
No previous configuration yet.
Make Backup
Backup the Current Configuration
There are no backup configuration files yet.
Upload One-Net Server Configuration backup file.
Type in full path of One-Net Config Backup file on your host computer or use Browse to find One-Net Config Backup file.
Browse...
Upload Offline Configuration Backup File
Done
Internet


One-Net CSP Web Interface - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://192.0.0.80/dasdec/dasdec.csp
Go
Google Search 1507 blocked Check AutoLink Options
Main/License
Configuration Mgmt
Upgrade
Server Configuration File Management
The configuration for this server can be stored on and offline using this interface. Configuration package files can be copied to other units and installed. Any time a configuration file is installed, the current configuration is stored as a previous configuration, which may be restored with one button. The scope of a configuration file is the entire range of GUI settings.
No previous configuration yet.
List of Configuration Backup Files
2006_03_10_10_43_37_dasdec_config.zip
Currently found 1 backup configuration file(s).
Download selected configuration file '2006_03_10_10_43_37_dasdec_config.zip'.
Make Backup
Backup the Current Configuration
Selected Config File Rename Interface
To rename type new name and select Rename Selected Configuration File button
2006_03_10_10_43_37_dasdec_config.zip
Rename Selected Configuration File
Selected configuration dated : Fri Mar 10 10:43:38 2006.
Installation will restart the server software.
Install
Install Selected Configuration
Delete File
Delete Selected Configuration File (Warning, no confirmation!)
Internet

Upload Offline Configuration Backup file

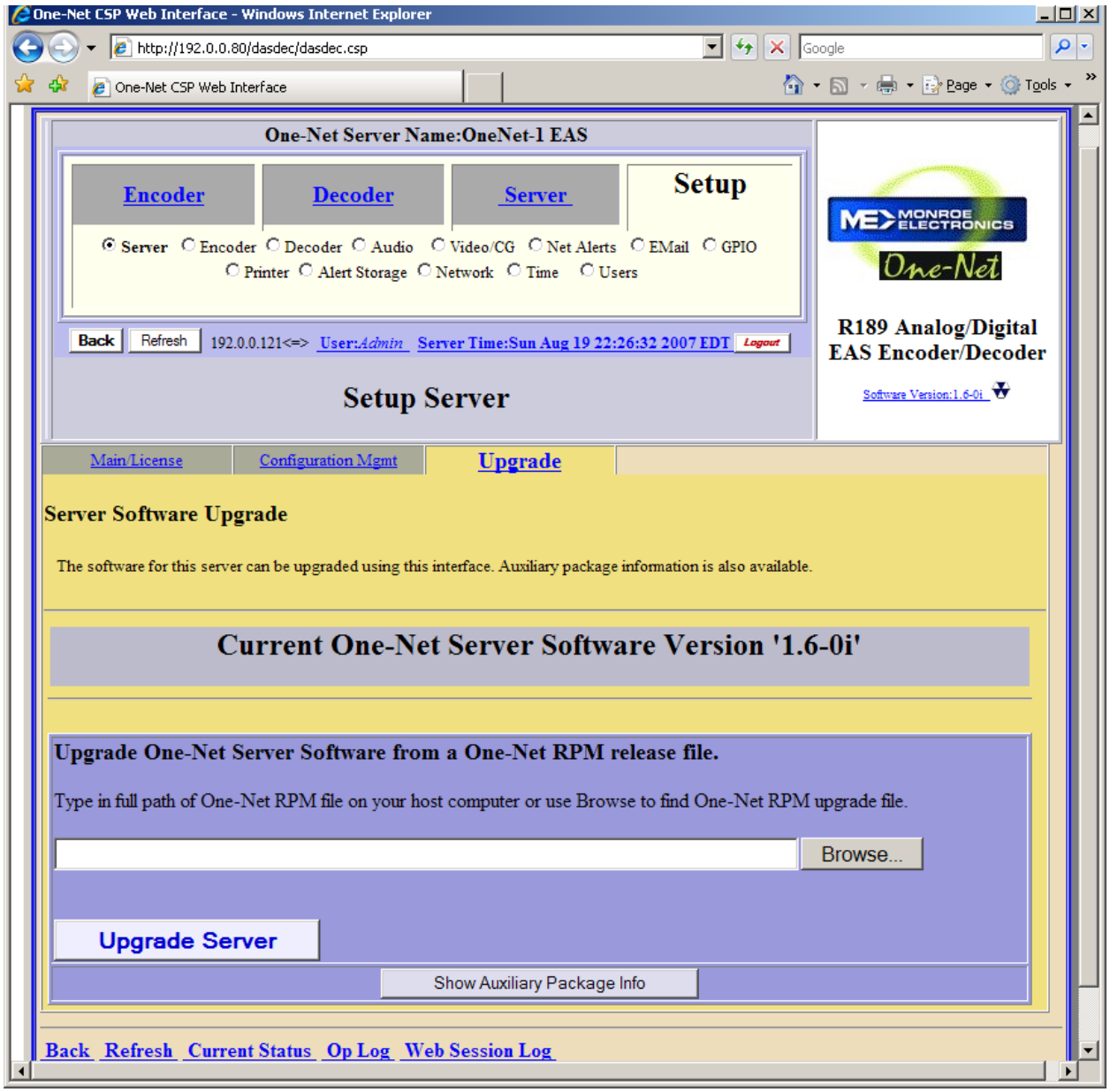
Clicking on this button will allow you to start an upload of a previously stored configuration file. This is useful if you want to configure multiple units with the same configuration, and for restoring a configuration that has been changed.


One-Net CSP Web Interface - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://192.0.0.80/dasdec/dasdec.csp
Main/License
Configuration Mgmt
Upgrade
Server Configuration File Management
The configuration for this server can be stored on and offline using this interface. Configuration package files can be copied to other units and installed. Any time a configuration file is installed, the current configuration is stored as a previous configuration, which may be restored with one button. The scope of a configuration file is the entire range of GUI settings.
No previous configuration yet.
Make Backup
Backup the Current Configuration
There are no backup configuration files yet.
Upload One-Net Server Configuration backup file.
Type in full path of One-Net Config Backup file on your host computer or use Browse to find One-Net Config Backup file.
Browse...
Upload Offline Configuration Backup File
Done
Internet

5.1.3. Upgrade

Upgrade One-Net Software

One-Net software can be conveniently upgraded through the Web interface with this feature. One-Net upgrades are done using RPM files. The RPM file must be available from or on your local host computers file system to use this feature. Type the path name of the file into the text box, or browse your local computer's file system until you locate the RPM file. Then click Upgrade Server. A confirmation page will allow you to continue with or cancel the upgrade. After accepting the upgrade, status will be returned about the file if it is not a correct upgrade file. Otherwise, you will be logged off the One-Net Web interface and will be directed to log back in after a short waiting period.


One-Net CSP Web Interface - Windows Internet Explorer
http://192.0.0.80/dasdec/dasdec.csp
One-Net CSP Web Interface
One-Net Server Name:OneNet-1 EAS
Encoder
Decoder
Server
Setup
Server Encoder Decoder Audio Video/CG Net Alerts EMail GPIO
Printer Alert Storage Network Time Users
Back
Refresh
192.0.0.121<=> User:Admin Server Time:Sun Aug 19 22:26:32 2007 EDT
Logout
Setup Server
R189 Analog/Digital EAS Encoder/Decoder
Software Version:1.6-0i
Main/License
Configuration Mgmt
Upgrade
Server Software Upgrade
The software for this server can be upgraded using this interface. Auxiliary package information is also available.
Current One-Net Server Software Version '1.6-0i'
Upgrade One-Net Server Software from a One-Net RPM release file.
Type in full path of One-Net RPM file on your host computer or use Browse to find One-Net RPM upgrade file.
Browse...
Upgrade Server
Show Auxiliary Package Info
Back Refresh Current Status Op Log Web Session Log

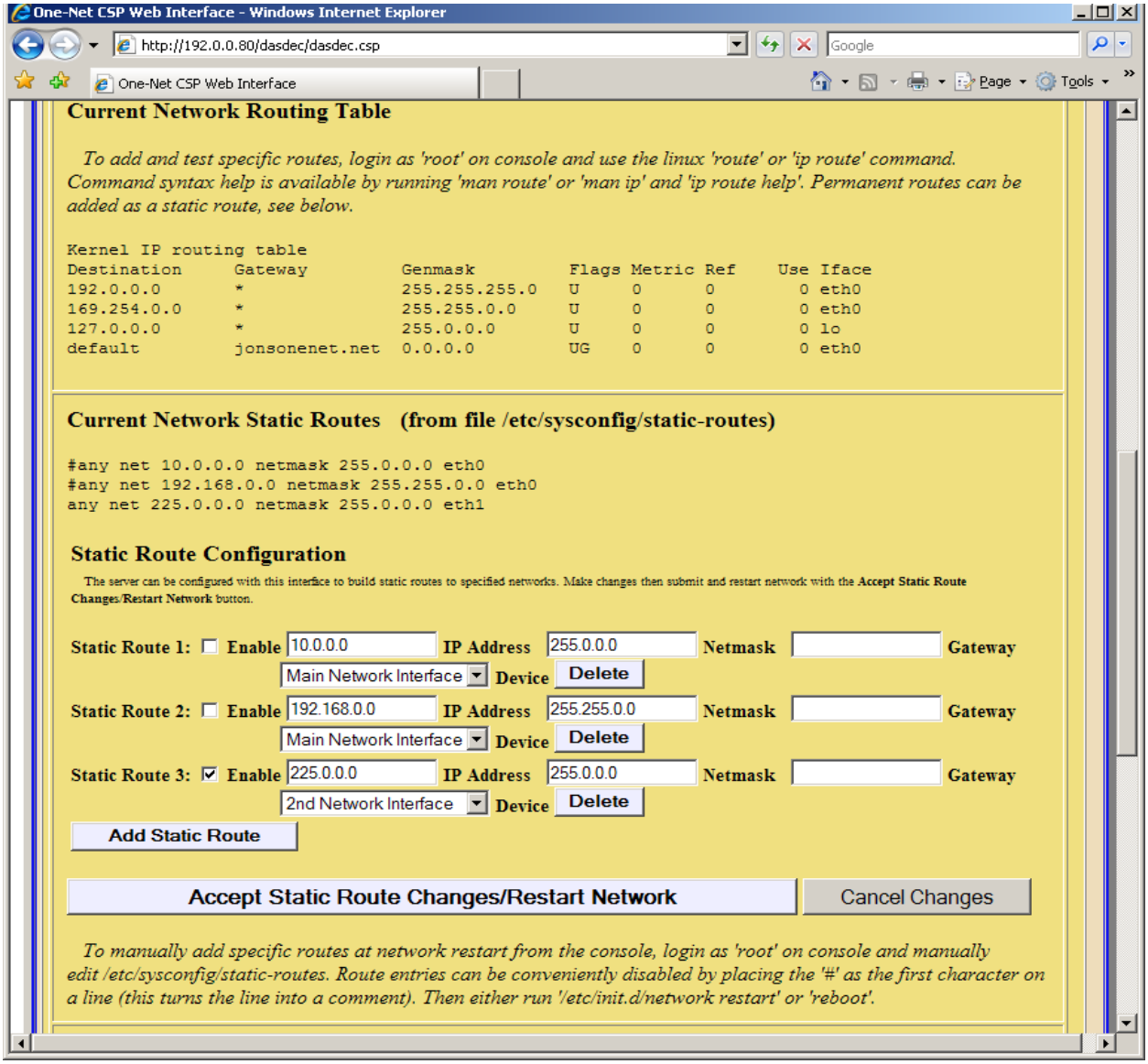
5.2. Setup > Network:

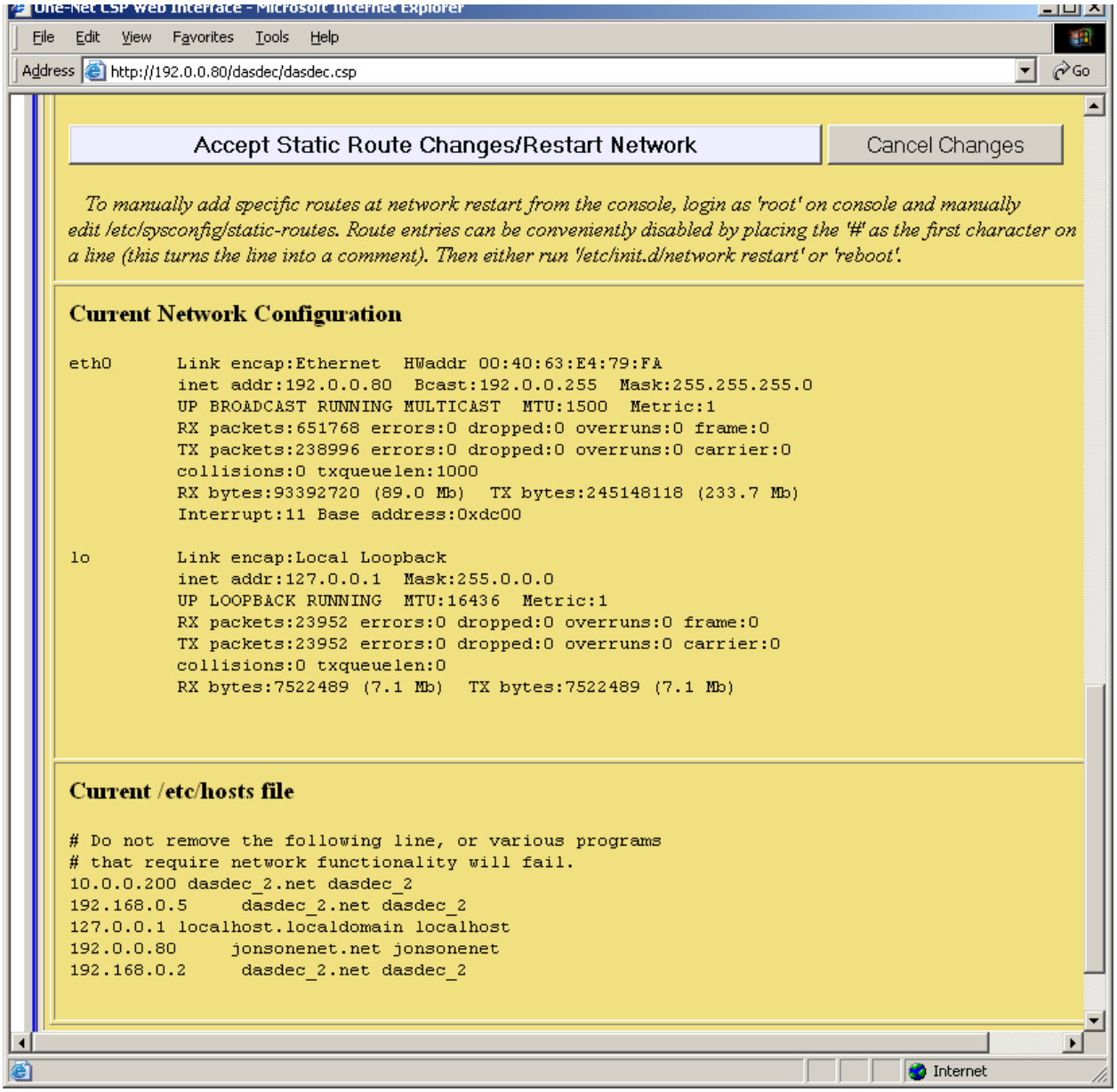
5.2.1. Configuration

Use this page to configure the One-Net to operate on a network(s), such as:

- One-Net network address information
- A static IP address; or
- DHCP to automatically acquire an IP assignment
- Set the Netmask, optional DNS (domain name services), and an optional gateway value.
- Add static routes.

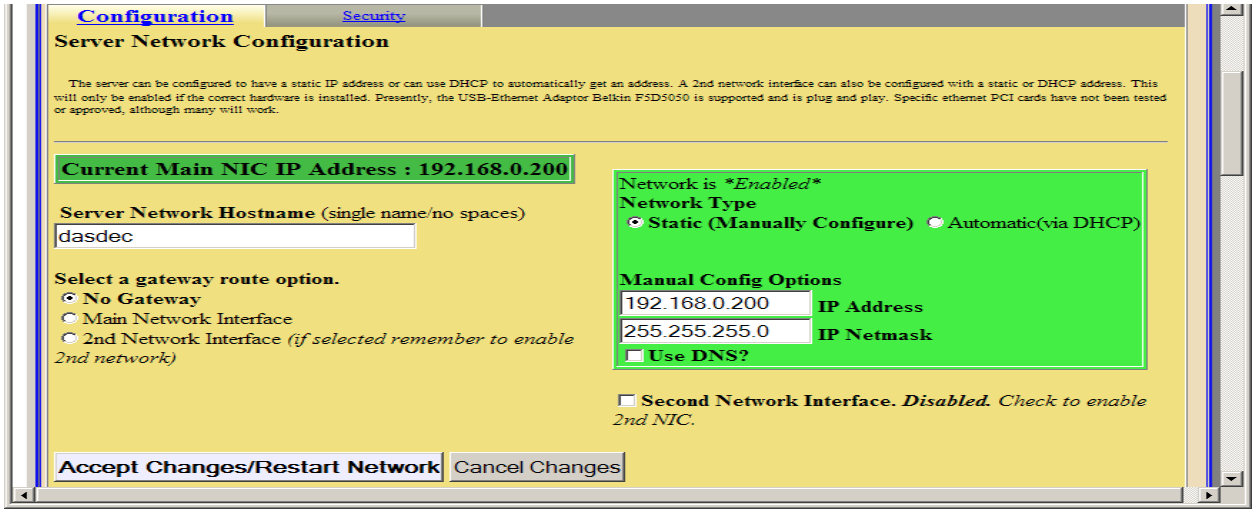
Information on current network configuration is displayed on the bottom half of the page. See the following sections for more information.


One-Net CSP Web Interface - Windows Internet Explorer
http://192.0.0.80/dasdec/dasdec.csp
One-Net CSP Web Interface
Current Network Routing Table
To add and test specific routes, login as 'root' on console and use the linux 'route' or 'ip route' command. Command syntax help is available by running 'man route' or 'man ip' and 'ip route help'. Permanent routes can be added as a static route, see below.
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
192.0.0.0 * 255.255.255.0 U 0 0 0 eth0
169.254.0.0 * 255.255.0.0 U 0 0 0 eth0
127.0.0.0 * 255.0.0.0 U 0 0 0 lo
default jonsonenet.net 0.0.0.0 UG 0 0 0 eth0
Current Network Static Routes (from file /etc/sysconfig/static-routes)
#any net 10.0.0.0 netmask 255.0.0.0 eth0
#any net 192.168.0.0 netmask 255.255.0.0 eth0
any net 225.0.0.0 netmask 255.0.0.0 eth1
Static Route Configuration
The server can be configured with this interface to build static routes to specified networks. Make changes then submit and restart network with the Accept Static Route Changes/Restart Network button.
Static Route 1: Enable 10.0.0.0 IP Address 255.0.0.0 Netmask Gateway
Main Network Interface Device Delete
Static Route 2: Enable 192.168.0.0 IP Address 255.255.0.0 Netmask Gateway
Main Network Interface Device Delete
Static Route 3: Enable 225.0.0.0 IP Address 255.0.0.0 Netmask Gateway
2nd Network Interface Device Delete
Add Static Route
Accept Static Route Changes/Restart Network
Cancel Changes
To manually add specific routes at network restart from the console, login as 'root' on console and manually edit /etc/sysconfig/static-routes. Route entries can be conveniently disabled by placing the '#' as the first character on a line (this turns the line into a comment). Then either run '/etc/init.d/network restart' or 'reboot'.


One-Net CSP Web Interface - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://192.0.0.80/dasdec/dasdec.csp
Go
Accept Static Route Changes/Restart Network
Cancel Changes
To manually add specific routes at network restart from the console, login as 'root' on console and manually edit /etc/sysconfig/static-routes. Route entries can be conveniently disabled by placing the '#' as the first character on a line (this turns the line into a comment). Then either run '/etc/init.d/network restart' or 'reboot'.
Current Network Configuration
eth0 Link encap:Ethernet HWaddr 00:40:63:E4:79:FA
inet addr:192.0.0.80 Bcast:192.0.0.255 Mask:255.255.255.0
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:651768 errors:0 dropped:0 overruns:0 frame:0
TX packets:238996 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:93392720 (89.0 Mb) TX bytes:245148118 (233.7 Mb)
Interrupt:11 Base address:0xdc00
lo Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:23952 errors:0 dropped:0 overruns:0 frame:0
TX packets:23952 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:7522489 (7.1 Mb) TX bytes:7522489 (7.1 Mb)
Current /etc/hosts file
Do not remove the following line, or various programs
that require network functionality will fail.
10.0.0.200 dasdec_2.net dasdec_2
192.168.0.5 dasdec_2.net dasdec_2
127.0.0.1 localhost.localdomain localhost
192.0.0.80 jonsonenet.net jonsonenet
192.168.0.2 dasdec_2.net dasdec_2
Internet

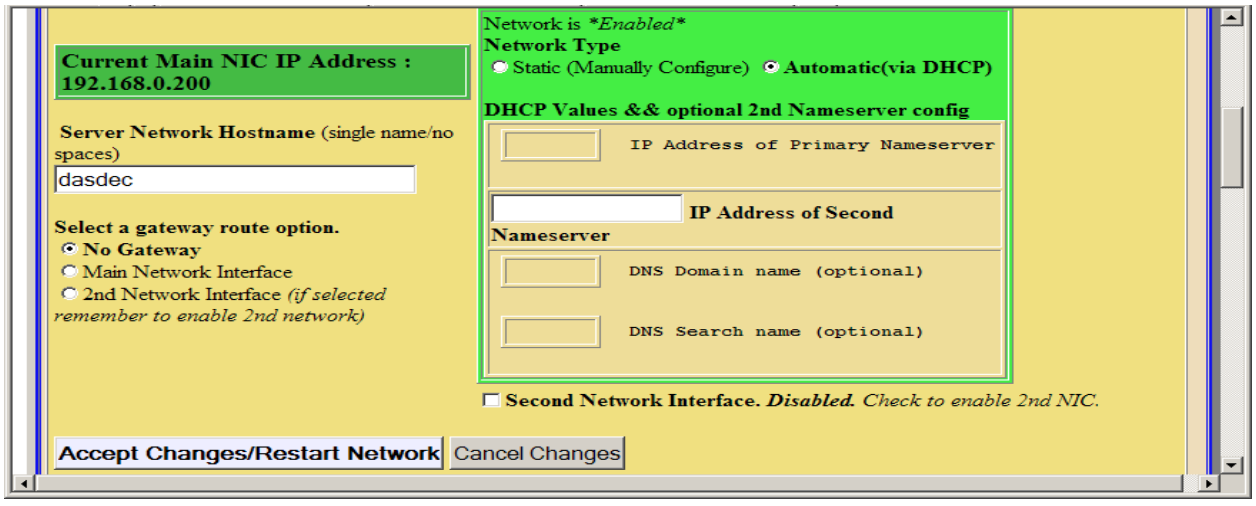
5.2.1.1. Network Type > Static: Default IP Address

When **Network Type** > **Static** is selected, the One-Net by default is given a static IP address of 192.168.0.200 [**Manual Config Options**]. The default IP Netmask is 255.255.0.0. No default DNS or gateway is configured.


Configuration
Security
Server Network Configuration
The server can be configured to have a static IP address or can use DHCP to automatically get an address. A 2nd network interface can also be configured with a static or DHCP address. This will only be enabled if the correct hardware is installed. Presently, the USB-Ethernet Adaptor Belkin F5D5050 is supported and is plug and play. Specific ethernet PCI cards have not been tested or approved, although many will work.
Current Main NIC IP Address : 192.168.0.200
Server Network Hostname (single name/no spaces)
dasdec
Select a gateway route option.
No Gateway
Main Network Interface
2nd Network Interface (if selected remember to enable 2nd network)
Network is *Enabled*
Network Type
Static (Manually Configure)
Automatic(via DHCP)
Manual Config Options
192.168.0.200
IP Address
255.255.255.0
IP Netmask
Use DNS?
Second Network Interface. Disabled. Check to enable 2nd NIC.
Accept Changes/Restart Network
Cancel Changes

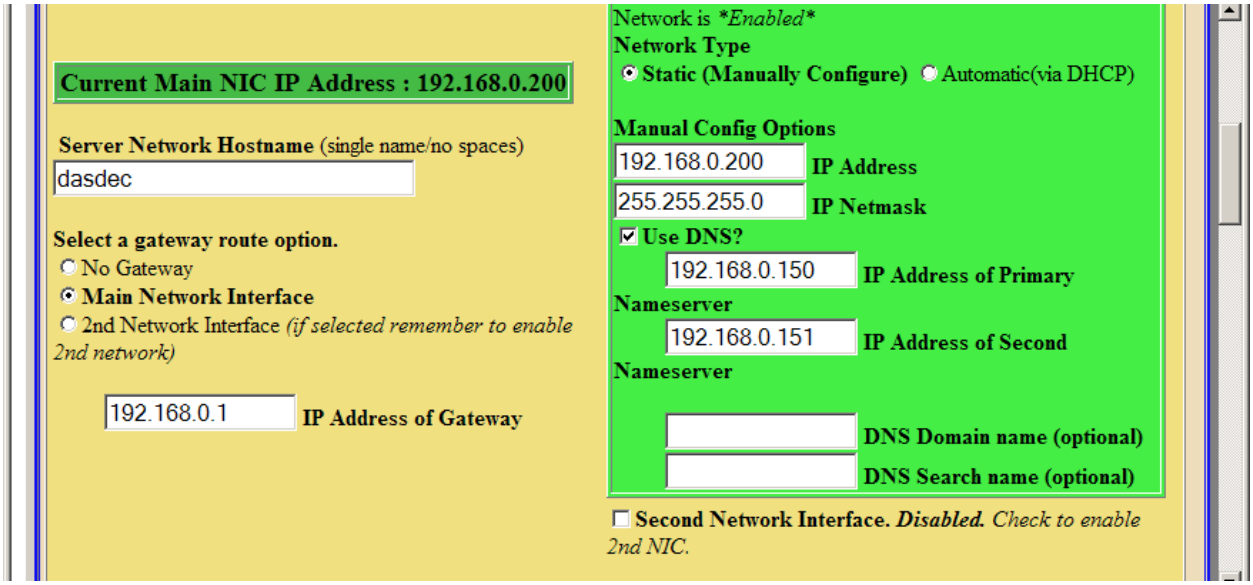
5.2.1.2. Network Type > Automatic: Set the IP address using DHCP

DHCP is a very convenient way to network a computer. It requires that your LAN be running an accessible DHCP server. When DHCP is used, the IP address, the Netmask and a DNS server are automatically granted. To use DHCP on the One-Net select **Network Type** > **Automatic (via DHCP)**. Then click Accept Changes. See the example below. Once the DHCP setting is accepted, the One-Net will log you off. After a few seconds wait, you can then log back in.


Current Main NIC IP Address : 192.168.0.200
Server Network Hostname (single name/no spaces)
dasdec
Select a gateway route option.
No Gateway
Main Network Interface
2nd Network Interface (if selected remember to enable 2nd network)
Network is *Enabled*
Network Type
Static (Manually Configure)
Automatic(via DHCP)
DHCP Values && optional 2nd Nameserver config
IP Address of Primary Nameserver
IP Address of Second Nameserver
DNS Domain name (optional)
DNS Search name (optional)
Second Network Interface. Disabled. Check to enable 2nd NIC.
Accept Changes/Restart Network
Cancel Changes

5.2.1.3. Network Type > Static: Setting the IP address manually

To set a new static IP address, select **Network Type > Static**. Then fill in the values for the desired IP address and Netmask. If needed, also select Use DNS and/or check for addition of a default gateway route.



Enter the corresponding values. The example shows a new IP address of 192.168.0.200 and a Netmask of 255.255.255.0, as well as a DNS and gateway configuration. To set the new values, select Accept Changes.

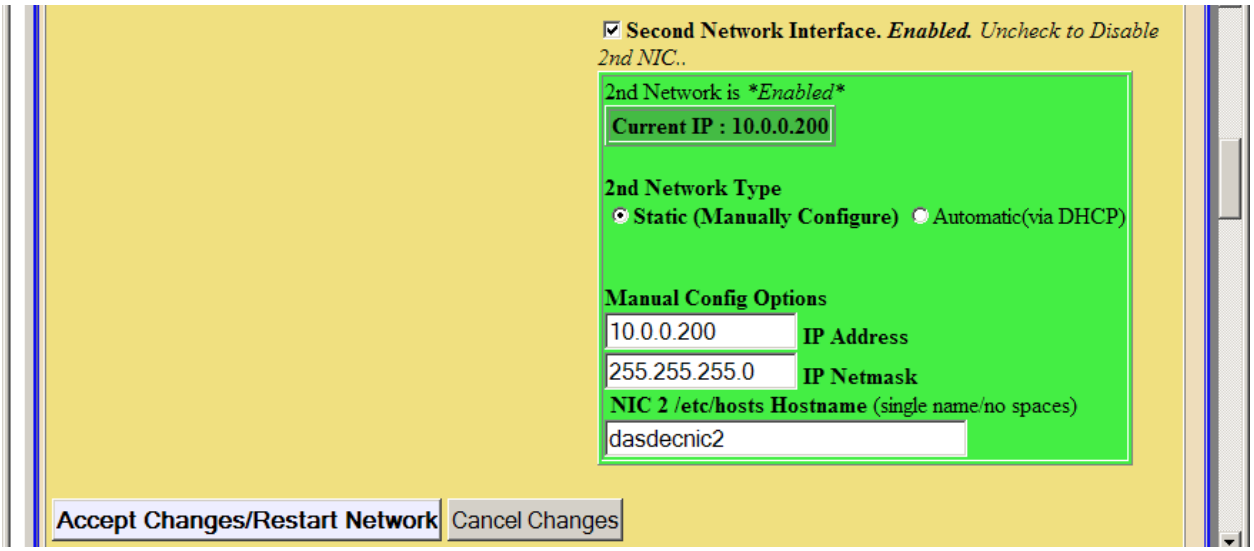
Once the new settings are accepted, the One-Net will log you off. After a few seconds wait, you can log back in on the redirected address on the Login page, as before.

IMPORTANT! You must be CAREFUL when configuring a static network address if you are configuring from a remote host. If an address, which is inaccessible to your network, is accepted for the One-Net, you will be unable to log back in from the remote host. If this happens to you accidentally or on purpose, you will have to directly login to the One-Net from a directly connected VGA monitor, keyboard and mouse. You can always configure the One-Net from this direct connection.

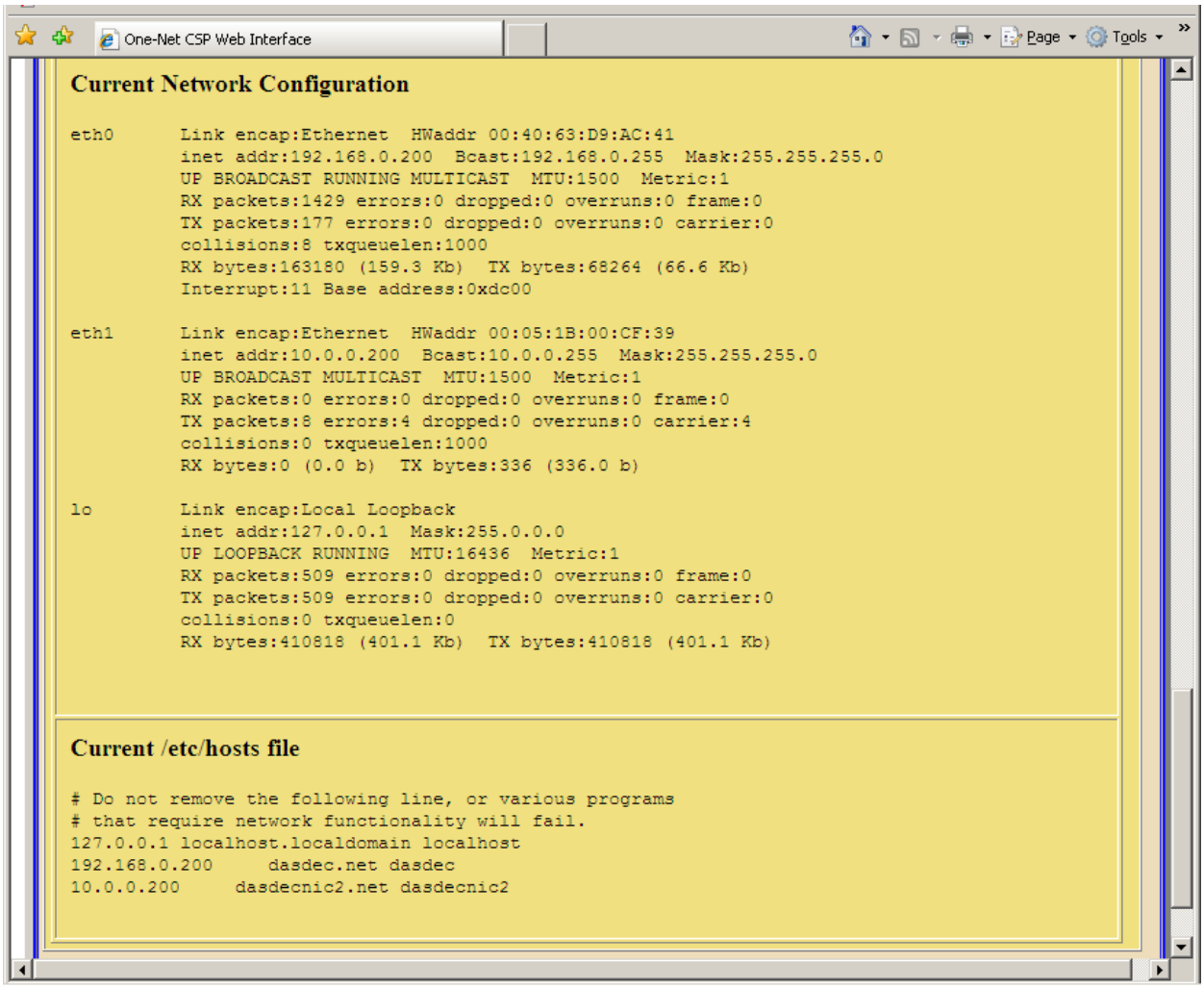
5.2.1.4. 2nd Network

If there is a need to control the One-Net through a 2nd network that can be accomplished by purchasing an external Network Interface Card (NIC) and programming it through this interface. Contact Monroe for an approved external NIC.

Programming the 2nd NIC is done by first enabling the 2nd NIC by clicking on the box to the left of the "Second Network Interface". If an external NIC is seen by the One-Net, the setup box will turn green. The setup boxes are exactly the same as the first NIC. A static address, DHCP, and a gateway route can be used.



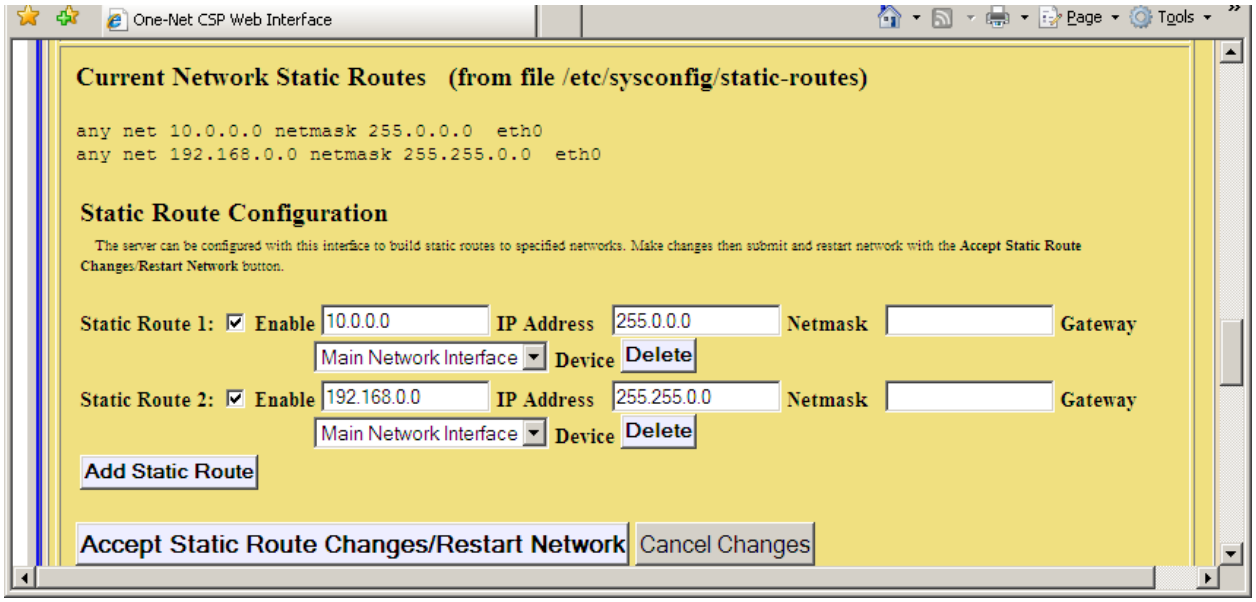
5.2.1.5. Network Status Information


One-Net CSP Web Interface
Page
Tools
Current Network Configuration
eth0 Link encap:Ethernet HWaddr 00:40:63:D9:AC:41
inet addr:192.168.0.200 Bcast:192.168.0.255 Mask:255.255.255.0
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:1429 errors:0 dropped:0 overruns:0 frame:0
TX packets:177 errors:0 dropped:0 overruns:0 carrier:0
collisions:8 txqueuelen:1000
RX bytes:163180 (159.3 Kb) TX bytes:68264 (66.6 Kb)
Interrupt:11 Base address:0xdc00
eth1 Link encap:Ethernet HWaddr 00:05:1B:00:CF:39
inet addr:10.0.0.200 Bcast:10.0.0.255 Mask:255.255.255.0
UP BROADCAST MULTICAST MTU:1500 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:8 errors:4 dropped:0 overruns:0 carrier:4
collisions:0 txqueuelen:1000
RX bytes:0 (0.0 b) TX bytes:336 (336.0 b)
lo Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:509 errors:0 dropped:0 overruns:0 frame:0
TX packets:509 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:410818 (401.1 Kb) TX bytes:410818 (401.1 Kb)
Current /etc/hosts file
Do not remove the following line, or various programs
that require network functionality will fail.
127.0.0.1 localhost.localdomain localhost
192.168.0.200 dasdec.net dasdec
10.0.0.200 dasdecnic2.net dasdecnic2

Tables at the bottom of the **Setup Network** page show the current network routes and network address information.

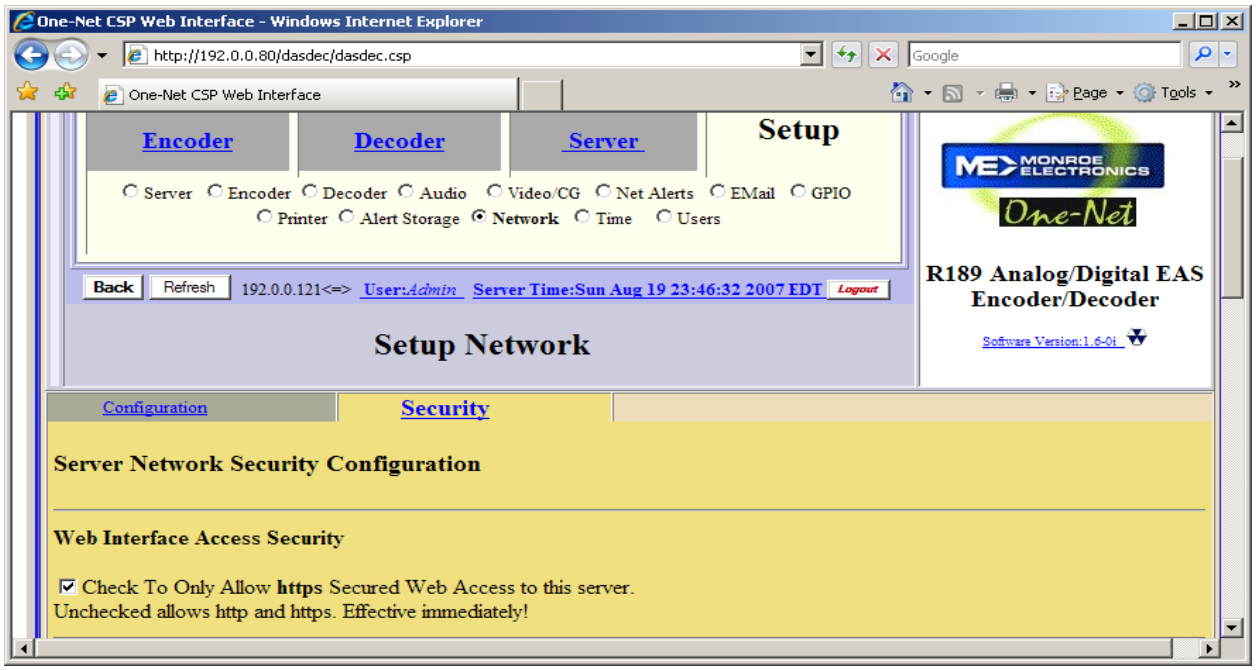
5.2.1.6. Static Route Configuration

The Main NIC and 2nd NIC can be configured to use static routes. The IP address, subnet mask and gateway setting can be programmed for each route.


One-Net CSP Web Interface
Page
Tools
Current Network Static Routes (from file /etc/sysconfig/static-routes)
any net 10.0.0.0 netmask 255.0.0.0 eth0
any net 192.168.0.0 netmask 255.255.0.0 eth0
Static Route Configuration
The server can be configured with this interface to build static routes to specified networks. Make changes then submit and restart network with the Accept Static Route Changes/Restart Network button.
Static Route 1: Enable 10.0.0.0 IP Address 255.0.0.0 Netmask Gateway
Main Network Interface Device Delete
Static Route 2: Enable 192.168.0.0 IP Address 255.255.0.0 Netmask Gateway
Main Network Interface Device Delete
Add Static Route
Accept Static Route Changes/Restart Network
Cancel Changes

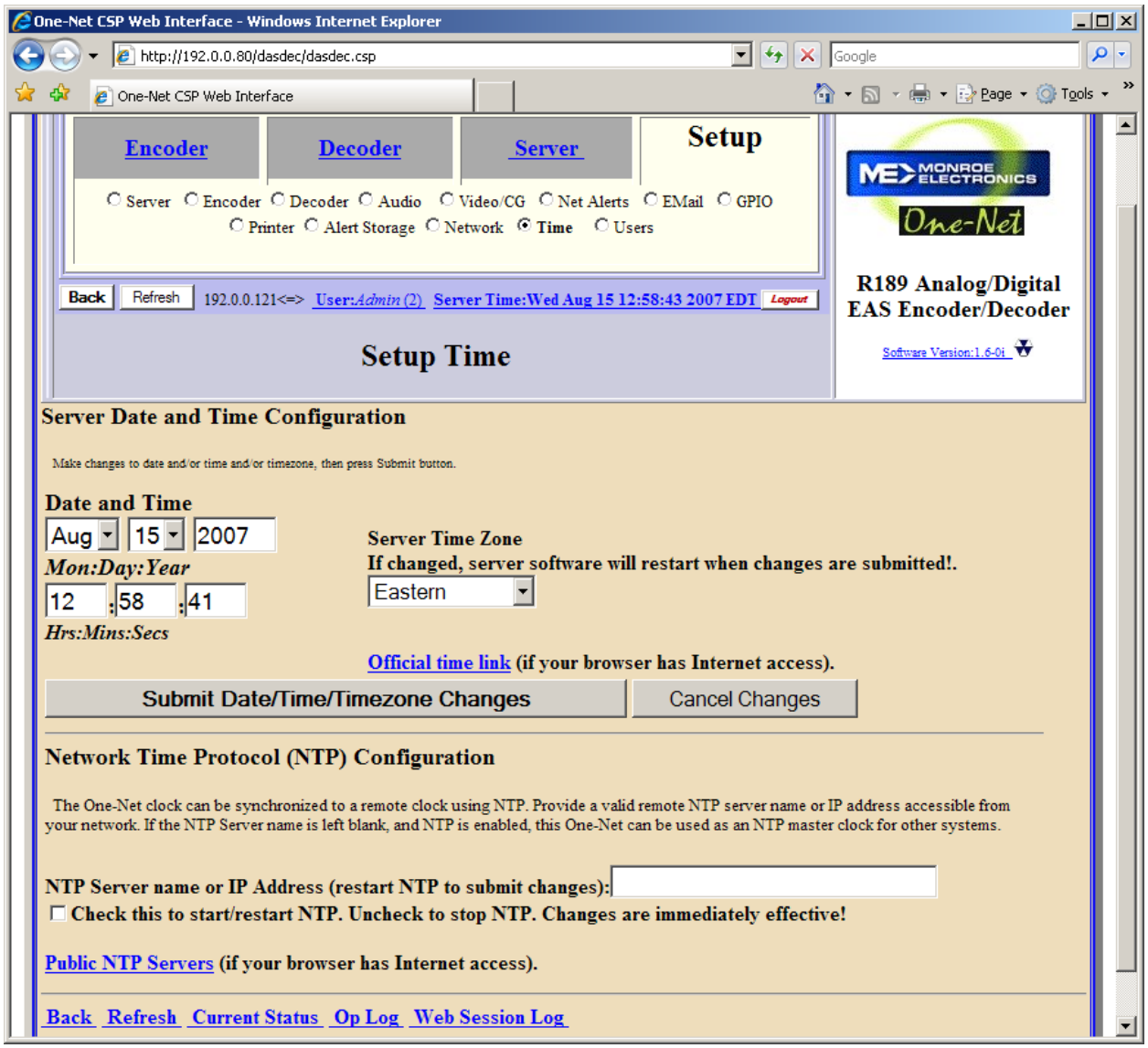
5.2.2. Security

The One-Net can be configured to allow unencrypted HTTP access or only SSL encrypted HTTPS access. By placing a check mark in the box only SSL encrypted HTTPS access will be allowed.



5.3. Setup > Time: One-Net Clock and NTP

The **Setup Time** page allows the hardware clock on the One-Net to be set. Date, time, and time zone may be set.


One-Net CSP Web Interface - Windows Internet Explorer
http://192.0.0.80/dasdec/dasdec.csp
One-Net CSP Web Interface
Encoder
Decoder
Server
Setup
Server Encoder Decoder Audio Video/CG Net Alerts EMail GPIO
Printer Alert Storage Network Time Users
Back Refresh 192.0.0.121<=> User:Admin (2) Server Time:Wed Aug 15 12:58:43 2007 EDT Logout
Setup Time
R189 Analog/Digital EAS Encoder/Decoder
Software Version:1.6-0i
Server Date and Time Configuration
Make changes to date and/or time and/or timezone, then press Submit button.
Date and Time
Aug 15 2007
Mon:Day:Year
12 :58 :41
Hrs:Mins:Secs
Server Time Zone
If changed, server software will restart when changes are submitted!.
Eastern
Official time link (if your browser has Internet access).
Submit Date/Time/Timezone Changes
Cancel Changes
Network Time Protocol (NTP) Configuration
The One-Net clock can be synchronized to a remote clock using NTP. Provide a valid remote NTP server name or IP address accessible from your network. If the NTP Server name is left blank, and NTP is enabled, this One-Net can be used as an NTP master clock for other systems.
NTP Server name or IP Address (restart NTP to submit changes):
Check this to start/restart NTP. Uncheck to stop NTP. Changes are immediately effective!
Public NTP Servers (if your browser has Internet access).
Back Refresh Current Status Op Log Web Session Log

One-Net Date and Time Configuration
Make changes to date and/or time and/or time zone, and then click Submit changes. If Time zone is changed, the One-Net will restart and you will be forced to log back into the Web interface. If the time is set forward far enough, you will also be forced to log back into the One-Net Web interface.

Network Time Protocol (NTP) Configuration
The One-Net supports Network Time Protocol (NTP) to synchronize its clock to another clock over a network. This will synchronize the One-Net to an atomic clock over the Internet, or to another computer running NTP on your LAN, or to another One-Net running as an NTP server on your LAN.

NTP Server name or IP Address:
You must enter a name of a remote NTP server that is accessible from the One-Net LAN.

Public NTP servers can be viewed by following the link provided. **NOTE:** The computer hosting the Web browser must have Internet access to follow this link, and the One-Net must be able to contact the chosen NTP server.

The checkbox for NTP must be checked to start NTP. If no NTP server name is entered and NTP is enabled, then the One-Net will become an NTP server that can be pointed at from other One-Nets over the LAN.

5.4. Setup > Users

The **Setup Users** page can be used to manage user accounts on the One-Net. From this page, you can add and delete user accounts, change the Web Interface passwords, and set user permission levels. The Admin account cannot be deleted, and only Admin can change the Admin password.

Edit One-Net User Account Profile

Select account pull down. Select the user account to edit from this list. Under this menu is information about the selected user's current and last login information.

Permission Level. A permission level can be granted (for non-Admin users) as View Only, Basic Operation, Operation, Operation/Control, and Administration with this pull down menu. Pages in the One-Net are granted a permission level for entry/access. For instance, only a user with Administration permission may access the **Setup > Users** page. Trying to access a One-Net page without the proper permission level will result in a clear notification message.

Account Comment. A simple text comment can be attached to non-Admin user accounts.

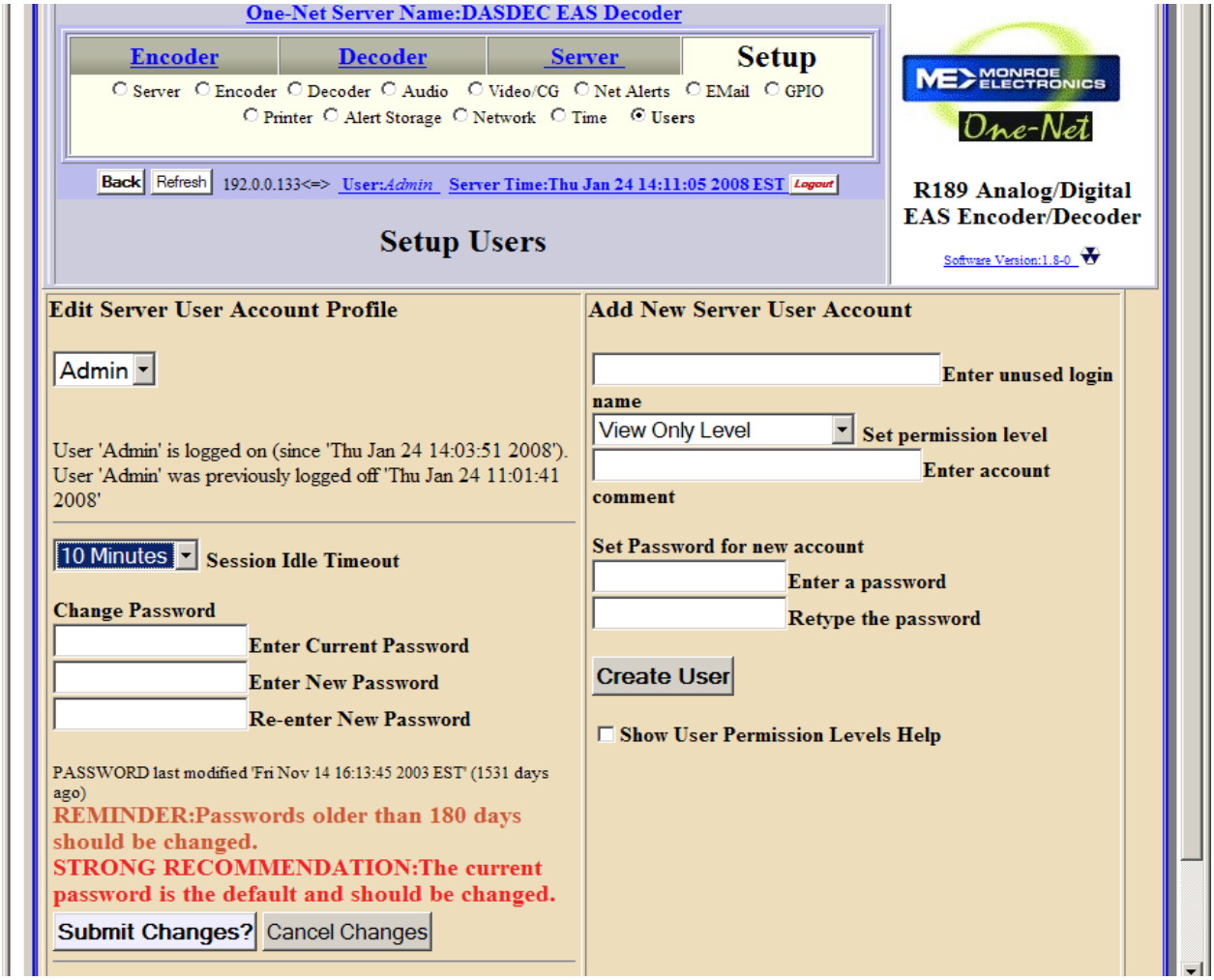
Change Password. Enter the current password, then enter the new password twice in the fields provided. Only Admin can change the Admin password.

For these changes click Submit Changes. The changes are effective immediately.

Delete User. Non-Admin users can be deleted with this button. NOTE: This is effective immediately.

Add New One-Net User Account Type

Enter information as directed on the screen and click Create User.


One-Net Server Name:DASDEC EAS Decoder
Encoder
Decoder
Server
Setup
Server Encoder Decoder Audio Video/CG Net Alerts EMail GPIO
Printer Alert Storage Network Time Users
Back
Refresh
192.0.0.133<=> User:Admin Server Time:Thu Jan 24 14:11:05 2008 EST
Logout
Setup Users
MONROE ELECTRONICS
One-Net
R189 Analog/Digital EAS Encoder/Decoder
Software Version:1.8-0
Edit Server User Account Profile
Admin
User 'Admin' is logged on (since 'Thu Jan 24 14:03:51 2008').
User 'Admin' was previously logged off 'Thu Jan 24 11:01:41 2008'
10 Minutes
Session Idle Timeout
Change Password
Enter Current Password
Enter New Password
Re-enter New Password
PASSWORD last modified 'Fri Nov 14 16:13:45 2003 EST' (1531 days ago)
REMINDER:Passwords older than 180 days should be changed.
STRONG RECOMMENDATION:The current password is the default and should be changed.
Submit Changes?
Cancel Changes
Add New Server User Account
Enter unused login name
View Only Level
Set permission level
Enter account comment
Set Password for new account
Enter a password
Retype the password
Create User
Show User Permission Levels Help

Session Idle Timeout

The amount of idle time before being logged out of the One-Net is programmable. The default setting is 10 minutes.

Show User Permission Levels Help

Placing a check mark in this box will show the user the help screen for permission levels. This describes what settings/feature are available at each permission level.

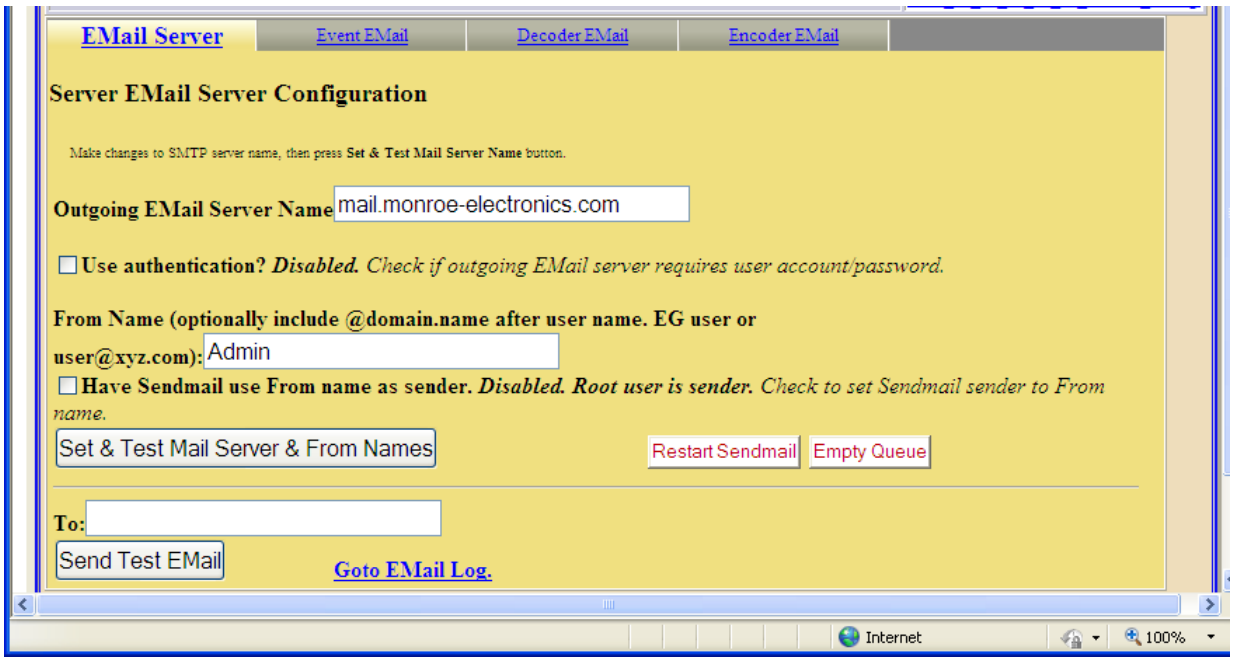
5.5. Setup > Email

The One-Net can be configured to optionally send email upon alert decoding, origination, and forwarding. Select the **Setup > Email** page to configure an outgoing email server and to configure the send options. There are four tabbed sections: Email Server, Event Email, Decoder Email, and Encoder Email.

5.5.1. Email Server

- To set the outgoing email server name, select **Setup Email >Email Server.** From this page you can set the name of the SMTP server for outgoing Emails from the One-Net. Enter a name in the text field after **Outgoing Email Server** and click Set & Test Mail Server Name.
- The One-Net will attempt to "ping" this Email server.
- If it succeeds, the message "OK :Contacted Email Server" will display under the name.

To test if Email can actually be sent via the chosen Email server, type a valid Email address in the **To:** text field and click Send Test Email. If this works, the chosen recipient should receive an Email.

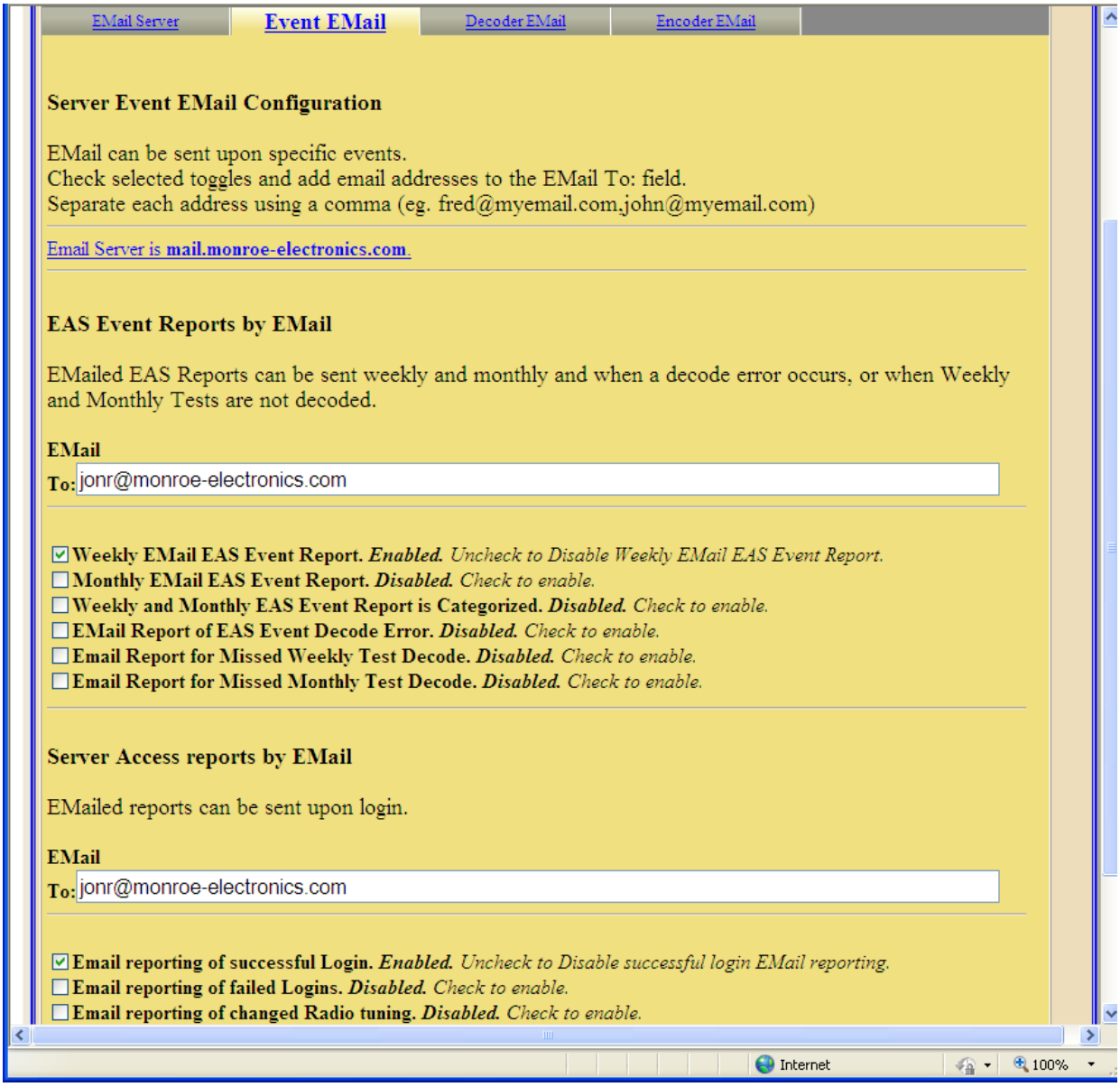

EMail Server
Event EMail
Decoder EMail
Encoder EMail
Server EMail Server Configuration
Make changes to SMTP server name, then press Set & Test Mail Server Name button.
Outgoing EMail Server Name
mail.monroe-electronics.com
Use authentication? Disabled. Check if outgoing EMail server requires user account/password.
From Name (optionally include @domain.name after user name. EG user or user@xyz.com):
Admin
Have Sendmail use From name as sender. Disabled. Root user is sender. Check to set Sendmail sender to From name.
Set & Test Mail Server & From Names
Restart Sendmail
Empty Queue
To:
Send Test EMail
Goto EMail Log.
Internet
100%

5.5.2. Event Email

This page allows the user to the ability to have Event logs emailed either weekly or monthly, and to be emailed when a successfully or failed login to the One-Net has occurred.

Emailing EAS Event Reports:
Check either of the boxes to disable or enable Emailing of Event Reports either on a monthly or weekly basis. If enabled, enter the Email address in the **Email To:** field.

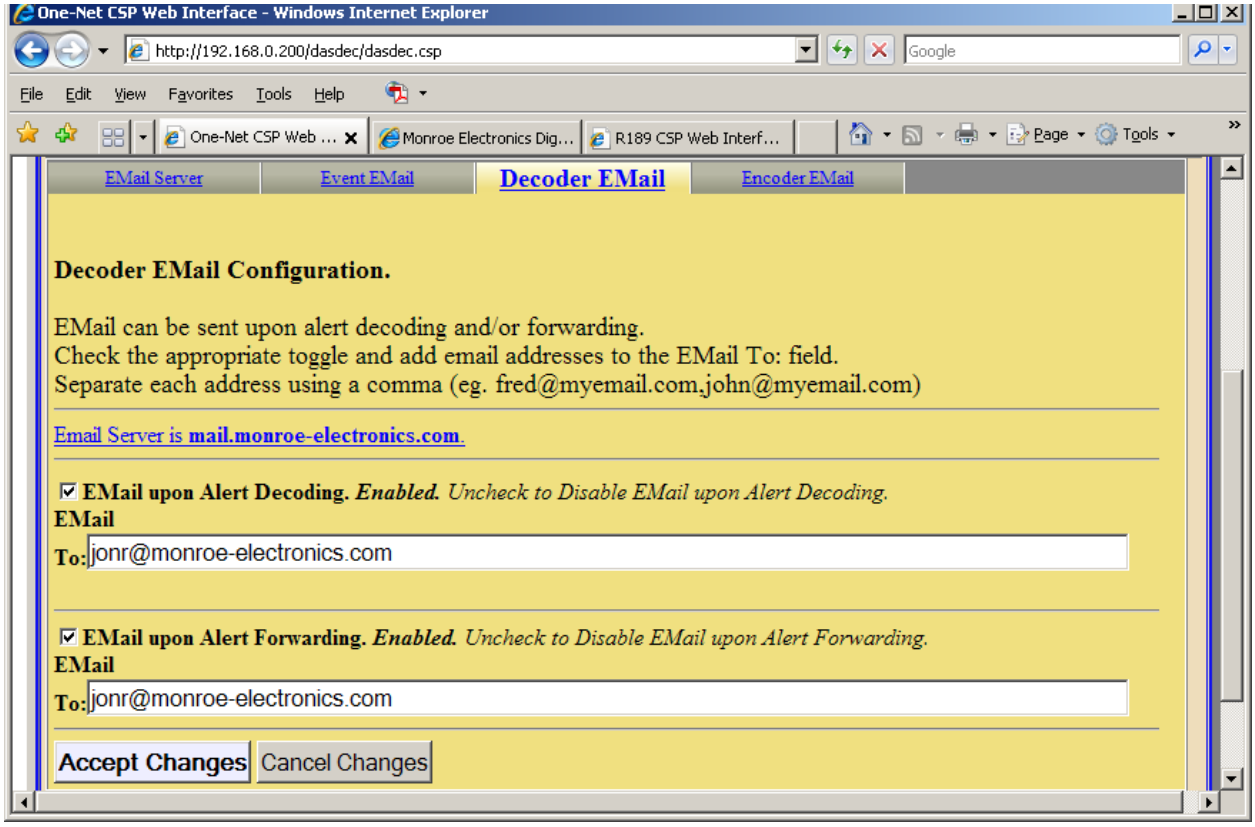
Server Access Reports:
Check either of the boxes to disable or enable Emailing of Server Access Reports. If enabled, enter the Email address in the **Email To:** field.


EMail Server
Event EMail
Decoder EMail
Encoder EMail
Server Event EMail Configuration
EMail can be sent upon specific events.
Check selected toggles and add email addresses to the EMail To: field.
Separate each address using a comma (eg. fred@myemail.com,john@myemail.com)
Email Server is mail.monroe-electronics.com.
EAS Event Reports by EMail
EMailed EAS Reports can be sent weekly and monthly and when a decode error occurs, or when Weekly and Monthly Tests are not decoded.
EMail
To: jonr@monroe-electronics.com
Weekly EMail EAS Event Report. Enabled. Uncheck to Disable Weekly EMail EAS Event Report.
Monthly EMail EAS Event Report. Disabled. Check to enable.
Weekly and Monthly EAS Event Report is Categorized. Disabled. Check to enable.
EMail Report of EAS Event Decode Error. Disabled. Check to enable.
Email Report for Missed Weekly Test Decode. Disabled. Check to enable.
Email Report for Missed Monthly Test Decode. Disabled. Check to enable.
Server Access reports by EMail
EMailed reports can be sent upon login.
EMail
To: jonr@monroe-electronics.com
Email reporting of successful Login. Enabled. Uncheck to Disable successful login EMail reporting.
Email reporting of failed Logins. Disabled. Check to enable.
Email reporting of changed Radio tuning. Disabled. Check to enable.
Internet
100%

5.5.3. Decoder Email

To set up the outgoing email for the One-Net decoder events, select **Setup Email > Decoder Email.** Email can be sent upon alert decoding and/or forwarding. The Email Server is identified. If changes to the outgoing email server are needed, return to the **Setup Email >Email Server** screen.

Check the appropriate toggle and add email addresses to the Email To: field. Check either:


One-Net CSP Web Interface - Windows Internet Explorer
http://192.168.0.200/dasdec/dasdec.csp
File Edit View Favorites Tools Help
One-Net CSP Web ...
Monroe Electronics Dig...
R189 CSP Web Interf...
Page Tools
EMail Server
Event EMail
Decoder EMail
Encoder EMail
Decoder EMail Configuration.
EMail can be sent upon alert decoding and/or forwarding.
Check the appropriate toggle and add email addresses to the EMail To: field.
Separate each address using a comma (eg. fred@myemail.com,john@myemail.com)
Email Server is mail.monroe-electronics.com.
EMail upon Alert Decoding. Enabled. Uncheck to Disable EMail upon Alert Decoding.
EMail
To: jonr@monroe-electronics.com
EMail upon Alert Forwarding. Enabled. Uncheck to Disable EMail upon Alert Forwarding.
EMail
To: jonr@monroe-electronics.com
Accept Changes
Cancel Changes

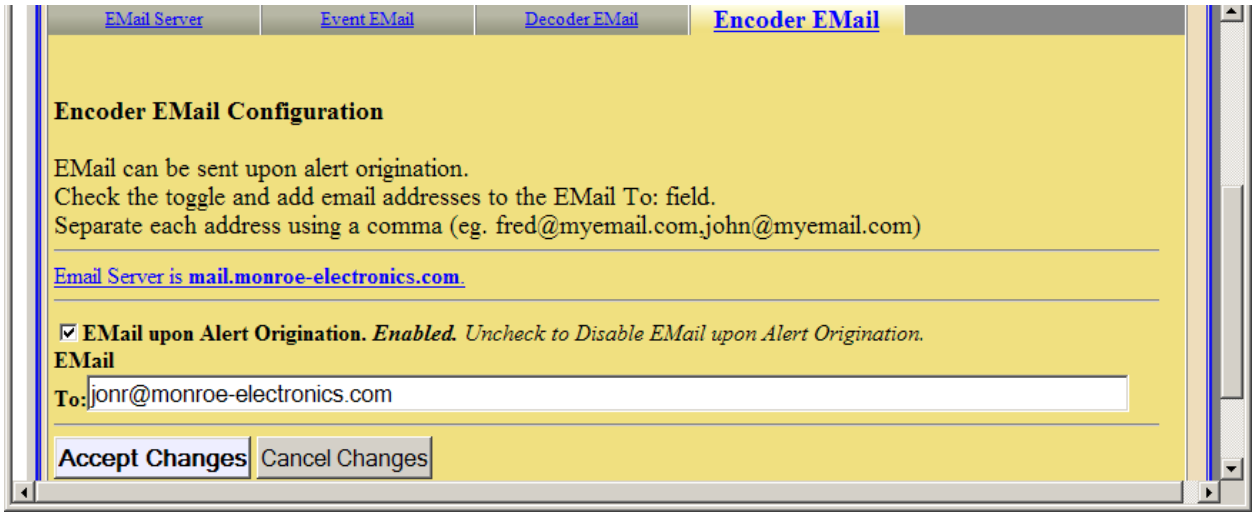
Email upon Alert Decoding: Check the box to disable or enable Email on Alert Decoding. If enabled, enter the Email address in the **Email To:** field.

Email upon Alert Forwarding: Check the box to disable or enable Email upon Alert Forwarding. If enabled, enter the Email address in the **Email To:** field.

Click Accept Changes.

5.5.4. Encoder Email

To setup the outgoing email for the ONE-NET encoder events, select **Setup Email > Encoder Email**. Email can be sent upon alert origination. Follow screen instructions or the same method described above for Decoder Email. Click Accept Changes for any changes to be effective.

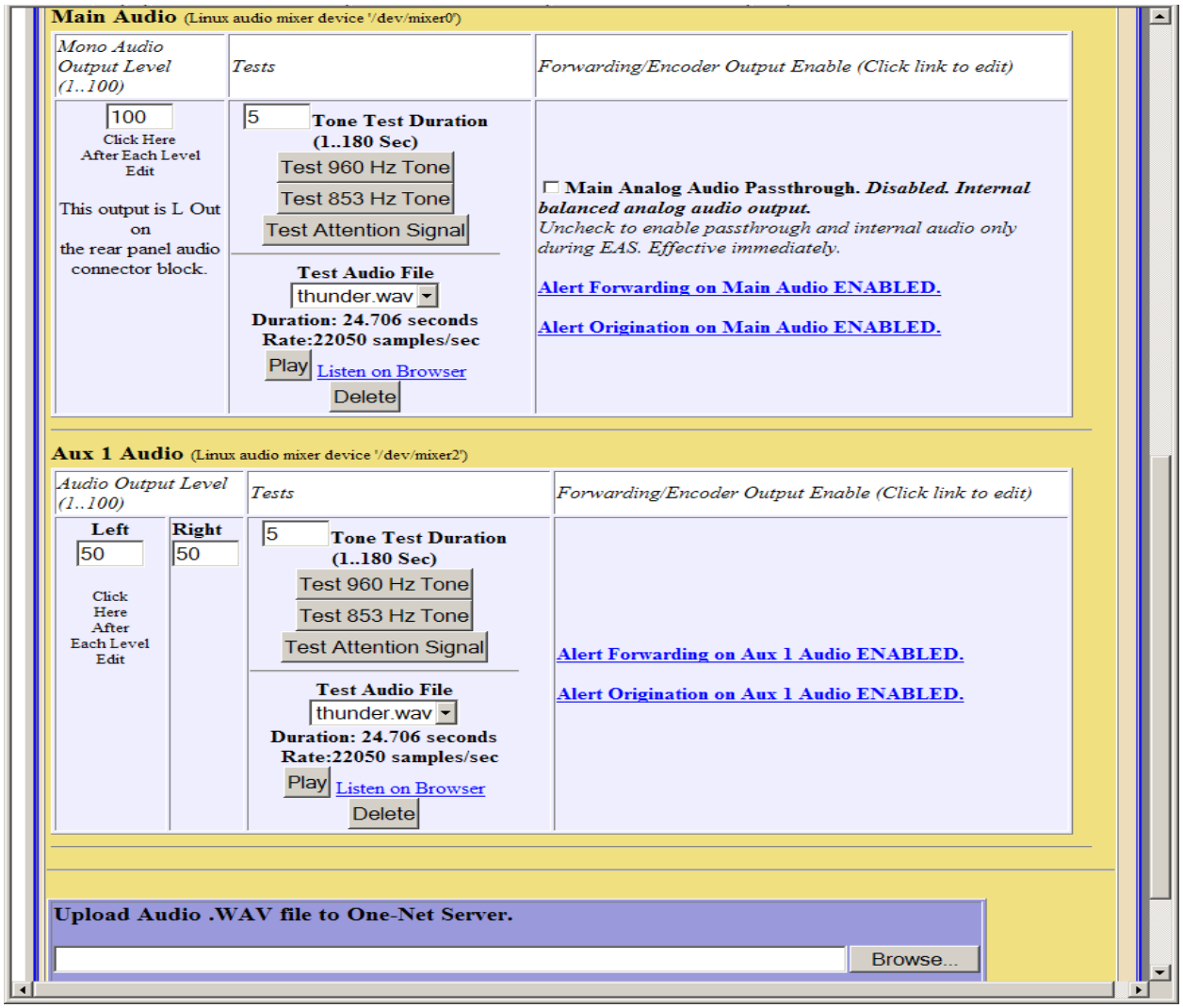

EMail Server
Event EMail
Decoder EMail
Encoder EMail
Encoder EMail Configuration
EMail can be sent upon alert origination.
Check the toggle and add email addresses to the EMail To: field.
Separate each address using a comma (eg. fred@myemail.com,john@myemail.com)
Email Server is mail.monroe-electronics.com.
EMail upon Alert Origination. Enabled. Uncheck to Disable EMail upon Alert Origination.
EMail
To: jonr@monroe-electronics.com
Accept Changes
Cancel Changes

5.6. Setup > Audio: Audio Levels and Tone Testing

There are four audio screens to configure: Decoder Audio, Encoder Audio, Audio Output Levels/Tests, and Radio Tuners. Start with **Audio Output Levels/Tests**.

5.6.1. Audio Output Levels/Tests

The audio output levels for the One-Net are always configured from this page. Also, audio tones can be played through each available audio output in order to test the output and calibrate levels using audio test equipment. Every One-Net will show the configuration interface for the Front Panel Speaker, Main Audio and for the Auxiliary Audio 1. Configure the levels by entering numbers from 0 to 100 for any specific port. Values near 70 are a good starting point for the One-Net.



NOTE: The interface pages for Decoder and Encoder Audio display and reference audio output levels for certain features. These references always provide an active hyperlink into this page to allow for changes to audio output levels.

To test the Main and/or Auxiliary Audio outputs, attach speakers to the One-Net audio device output ports and run the various tone test buttons. The Front Panel Speaker can be tested as is. These tests allow the One-Net to play each of the two single tones that comprise the dual-tone EAS Attention Signal. The EAS Attention signal and WAV files can also be played. The duration of the test is set per Audio device by the **Test Tone Duration** fields.

Audio tests, audio levels and duration changes occur immediately.

Alert Audio toggles

The Main and Auxiliary Audio displays also display with an active hyperlink if alert audio from originated and forwarded alerts is enabled. Clicking these links will jump to the correct Decoder and Encoder Audio setup page for changes to be made.

Upload Audio .WAV file to One-Net Server
This interface allows Wav files to be uploaded into the One-Net. Uploaded audio files are available for tests as well as for encoding and manual forwarding.

5.6.2. Decoder Audio

There are three features provided to configure decoder audio: Alert Decoding, Decoder Audio Monitoring, and Alert Forwarding.

Each One-Net EAS decoder channel can be independently tuned for input sensitivity, and also can be enabled and disabled with the provided interfaces. The audio devices used during alert forwarding are also configured from this screen.

Alert Decoding Audio Configuration
Alert decoding occurs from active analysis of the audio input source on the Main and Auxiliary audio devices. Each stereo input to an audio device allows for two EAS decoder channels. Therefore the One-Net provides four decoders. Under the **Alert Decoding Audio Configuration** section, each audio device available for the One-Net is shown with a table that displays:

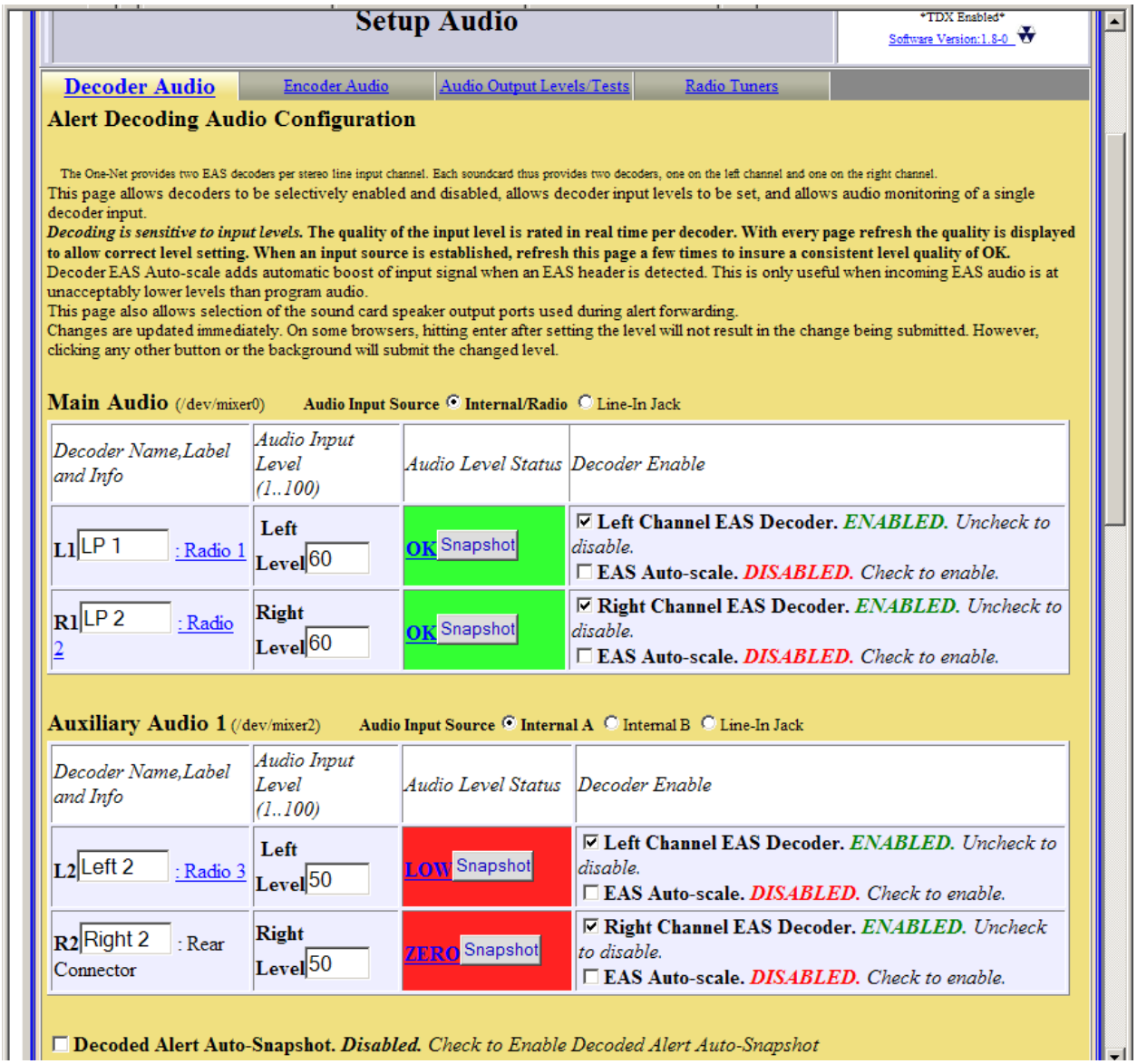
Decoder Name *Audio Input Level (1..100)* *Audio Level Status* *Decoder Enable*

Under each of these columns is displayed information/controls per decoder. The Decoder labels, shown for the Main Audio as LP1 and LP2, can be changed by the user if desired. The interface allows the audio input level and the decoder enable/disable to be changed per decoder. Changes become effective immediately. The Audio Level Status is a very useful tool to test for correct audio input levels. It will display if an audio signal is too low or high or OK. It can also detect if an audio input is silent. The level status is updated each time this page is redisplayed or when audio changes are submitted. Set audio input levels until the Green OK level is achieved.

Snapshot
Clicking on any of the four "Snapshot" buttons will create an audio .wav file for that specific decoder. This file contains the last three minutes of audio detected by the decoder. You can click on the link below the decoder to play the file. Snapshot is mainly used for troubleshooting purposes.

Placing a check mark in the "Decoded Alert Auto-Snapshot" box will create a .wav file every time an alert is decoded. This feature is also used mainly for troubleshooting purposes.

EAS Auto-scale
Placing a check mark in the "EAS Auto-scale" box will allow the One-Net to automatically adjust the audio level to a decoder if the level is too high or too low. This feature is used if signal levels from a source are not stable.

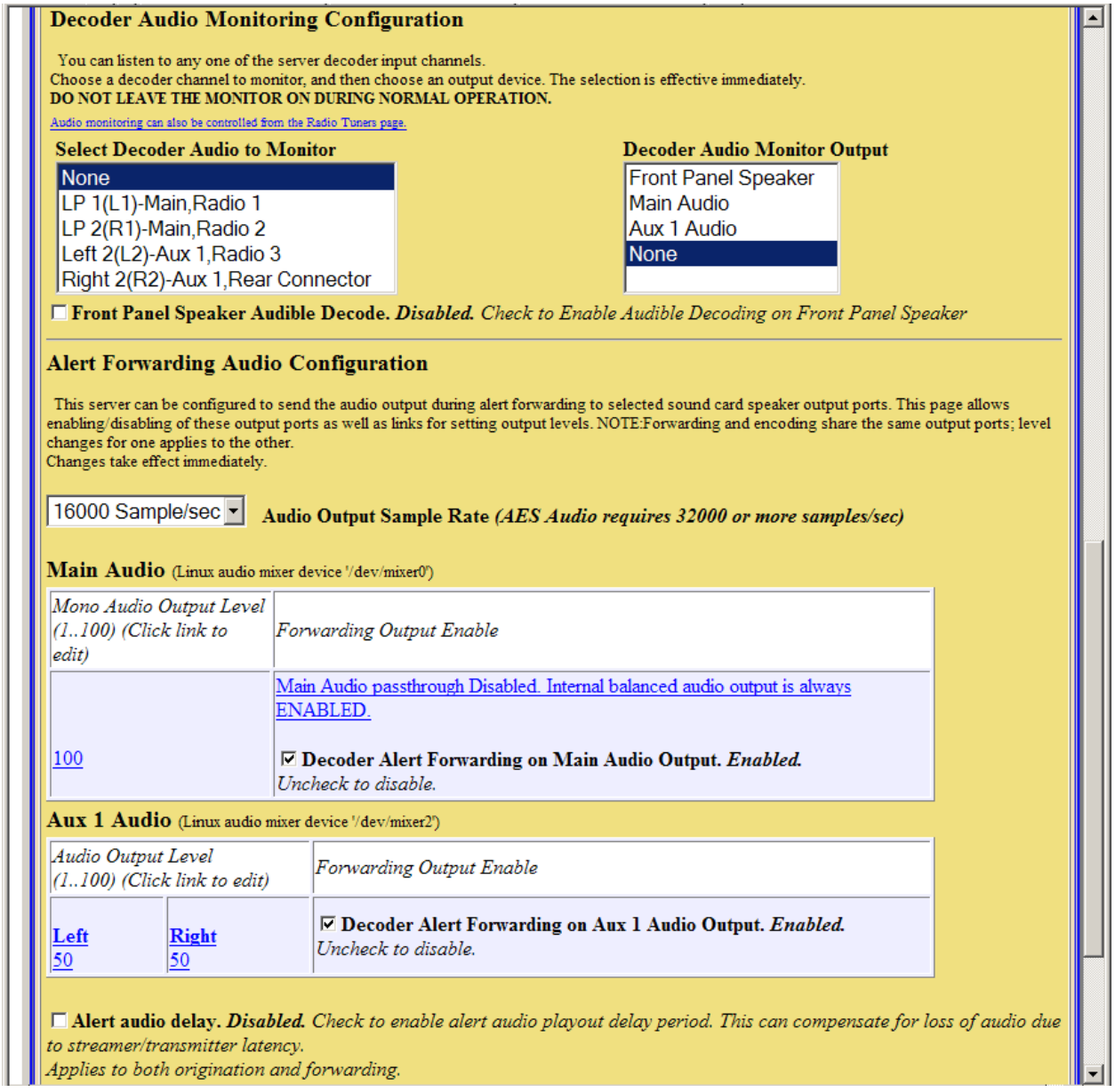

Setup Audio
TDX Enabled
Software Version:1.8-0
Decoder Audio
Encoder Audio
Audio Output Levels/Tests
Radio Tuners
Alert Decoding Audio Configuration
The One-Net provides two EAS decoders per stereo line input channel. Each soundcard thus provides two decoders, one on the left channel and one on the right channel.
This page allows decoders to be selectively enabled and disabled, allows decoder input levels to be set, and allows audio monitoring of a single decoder input.
Decoding is sensitive to input levels. The quality of the input level is rated in real time per decoder. With every page refresh the quality is displayed to allow correct level setting. When an input source is established, refresh this page a few times to insure a consistent level quality of OK.
Decoder EAS Auto-scale adds automatic boost of input signal when an EAS header is detected. This is only useful when incoming EAS audio is at unacceptably lower levels than program audio.
This page also allows selection of the sound card speaker output ports used during alert forwarding.
Changes are updated immediately. On some browsers, hitting enter after setting the level will not result in the change being submitted. However, clicking any other button or the background will submit the changed level.
Main Audio (/dev/mixer0)
Audio Input Source Internal/Radio Line-In Jack
Decoder Name,Label and Info
Audio Input Level (1..100)
Audio Level Status
Decoder Enable
L1 LP 1 : Radio 1
Left Level 60
OK Snapshot
Left Channel EAS Decoder. ENABLED. Uncheck to disable.
EAS Auto-scale. DISABLED. Check to enable.
R1 LP 2 : Radio 2
Right Level 60
OK Snapshot
Right Channel EAS Decoder. ENABLED. Uncheck to disable.
EAS Auto-scale. DISABLED. Check to enable.
Auxiliary Audio 1 (/dev/mixer2)
Audio Input Source Internal A Internal B Line-In Jack
Decoder Name,Label and Info
Audio Input Level (1..100)
Audio Level Status
Decoder Enable
L2 Left 2 : Radio 3
Left Level 50
LOW Snapshot
Left Channel EAS Decoder. ENABLED. Uncheck to disable.
EAS Auto-scale. DISABLED. Check to enable.
R2 Right 2 : Rear Connector
Right Level 50
ZERO Snapshot
Right Channel EAS Decoder. ENABLED. Uncheck to disable.
EAS Auto-scale. DISABLED. Check to enable.
Decoded Alert Auto-Snapshot. Disabled. Check to Enable Decoded Alert Auto-Snapshot

Decoder Audio Monitoring Configuration

These two interfaces allow a One-Net user to hear the audio from a selected decoder input. The **Select Decoder Audio to Monitor** list presents all of the decoder audio channels available to hear. The **Decoder Audio Monitor Output** list allows a specific output port to be selected to hear the audio chosen in **Select Decoder Audio to Monitor**. Choose a decoder channel and select an output port that has speakers (or the Internal Speaker) and click Accept Changes. To disable audio monitoring, select the None decoder and/or the None Audio output and again click Accept Changes.

Alert Forwarding Audio Configuration

After the One-Net decodes an EAS alert, it can be configured to "Forward" the alert. That is, it can play the alert as audio over a selected audio output. This interface allows for enabling Forwarding audio on each of the audio output devices. Enabling/disabling is achieved using the provided checkbox toggles. The text next to the toggles clearly indicates the current state and the result of toggling. The audio output levels are also displayed and provide an active hyperlink to the **Audio Output Levels/Tests** page to change the output levels. Changes do not take place until Accept Changes is clicked.


Decoder Audio Monitoring Configuration
You can listen to any one of the server decoder input channels.
Choose a decoder channel to monitor, and then choose an output device. The selection is effective immediately.
DO NOT LEAVE THE MONITOR ON DURING NORMAL OPERATION.
Audio monitoring can also be controlled from the Radio Tuners page.
Select Decoder Audio to Monitor
None
LP 1(L1)-Main,Radio 1
LP 2(R1)-Main,Radio 2
Left 2(L2)-Aux 1,Radio 3
Right 2(R2)-Aux 1,Rear Connector
Decoder Audio Monitor Output
Front Panel Speaker
Main Audio
Aux 1 Audio
None
Front Panel Speaker Audible Decode. Disabled. Check to Enable Audible Decoding on Front Panel Speaker
Alert Forwarding Audio Configuration
This server can be configured to send the audio output during alert forwarding to selected sound card speaker output ports. This page allows enabling/disabling of these output ports as well as links for setting output levels. NOTE:Forwarding and encoding share the same output ports; level changes for one applies to the other.
Changes take effect immediately.
16000 Sample/sec
Audio Output Sample Rate (AES Audio requires 32000 or more samples/sec)
Main Audio (Linux audio mixer device '/dev/mixer0')
Mono Audio Output Level (1..100) (Click link to edit)
Forwarding Output Enable
Main Audio passthrough Disabled. Internal balanced audio output is always ENABLED.
100
Decoder Alert Forwarding on Main Audio Output. Enabled.
Uncheck to disable.
Aux 1 Audio (Linux audio mixer device '/dev/mixer2')
Audio Output Level (1..100) (Click link to edit)
Forwarding Output Enable
Left
50
Right
50
Decoder Alert Forwarding on Aux 1 Audio Output. Enabled.
Uncheck to disable.
Alert audio delay. Disabled. Check to enable alert audio playout delay period. This can compensate for loss of audio due to streamer/transmitter latency.
Applies to both origination and forwarding.

5.6.3. Encoder Audio

There are two main configuration options for encoder audio: Alert Encoding and Microphone selection.

Alert Encoding Audio Configuration
When the One-Net encoder is used to originate an EAS alert, the audio associated with the alert must be played out of an output port in order for the alert to be transmitted or decoded by another decoder. The audio for the alert must be configured to play over a selected audio output. This interface allows for enabling/disabling Originating audio on each of the audio output devices. Enabling/disabling is achieved using the provided checkbox toggles. The text next to the toggles clearly indicates the current state and the result of toggling. The audio output levels are also displayed and provide an active hyperlink to the **Audio Output Levels/Tests** page to change the output levels. Changes are effective immediately.

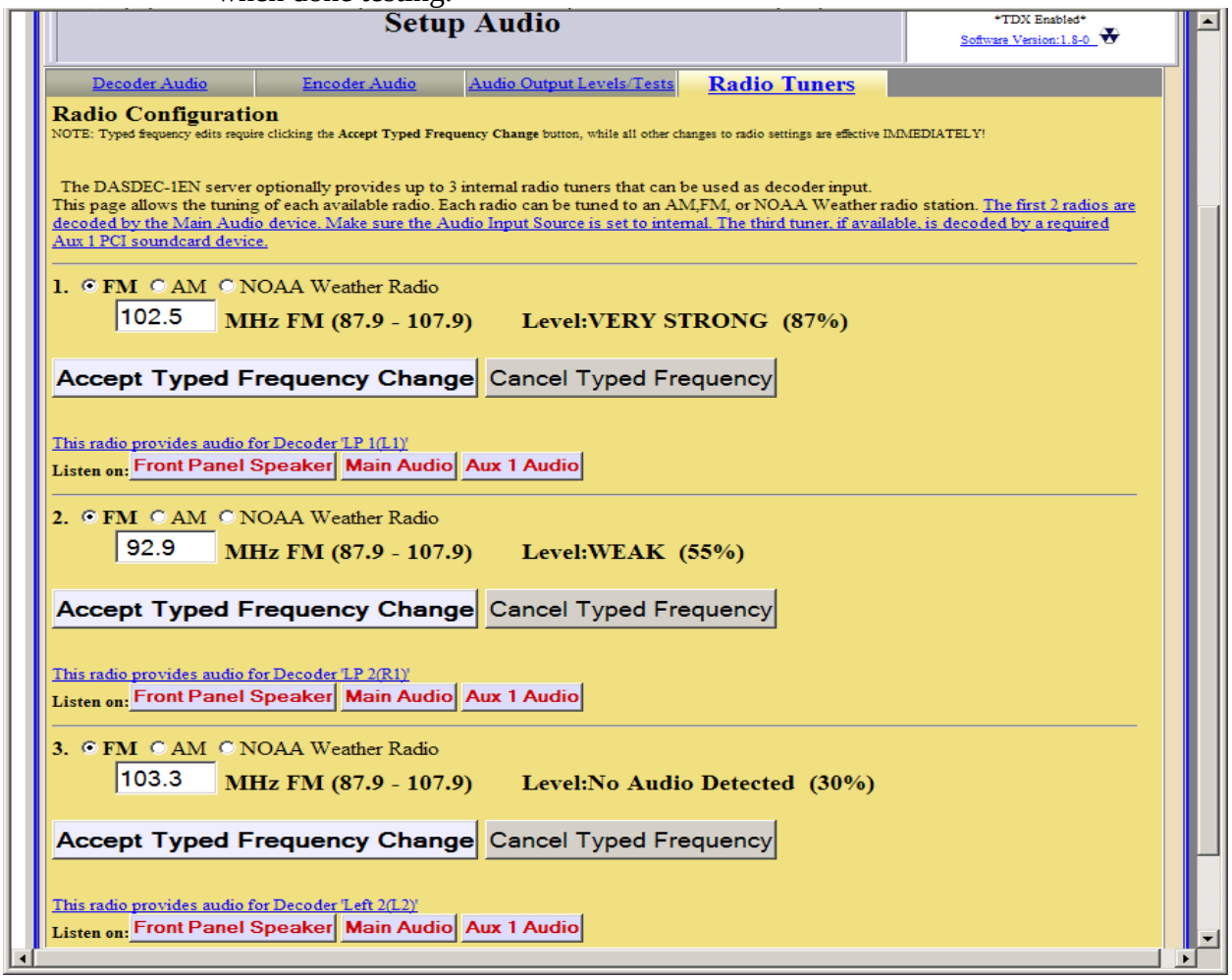
Select audio device for alert audio encoding microphone:
The One-Net encoder provides an interface to record audio into WAV files. These can then be used for the audio portion of an alert. This page provides for selecting which audio device is used for the microphone input source. The Main audio device or any Auxiliary Audio device with a microphone input can be selected for use during alert audio recording. Use the provided radio button to select the microphone. Use the **Mic Input Level** control to set the level for the microphone. Changes do not take place until Accept Changes is clicked.

5.6.4. Radio Tuners

The One-Net can be equipped with up to three internal radio tuners. Each tuner can be configured by the user, through the browser page, to receive AM, FM or NOAA stations.

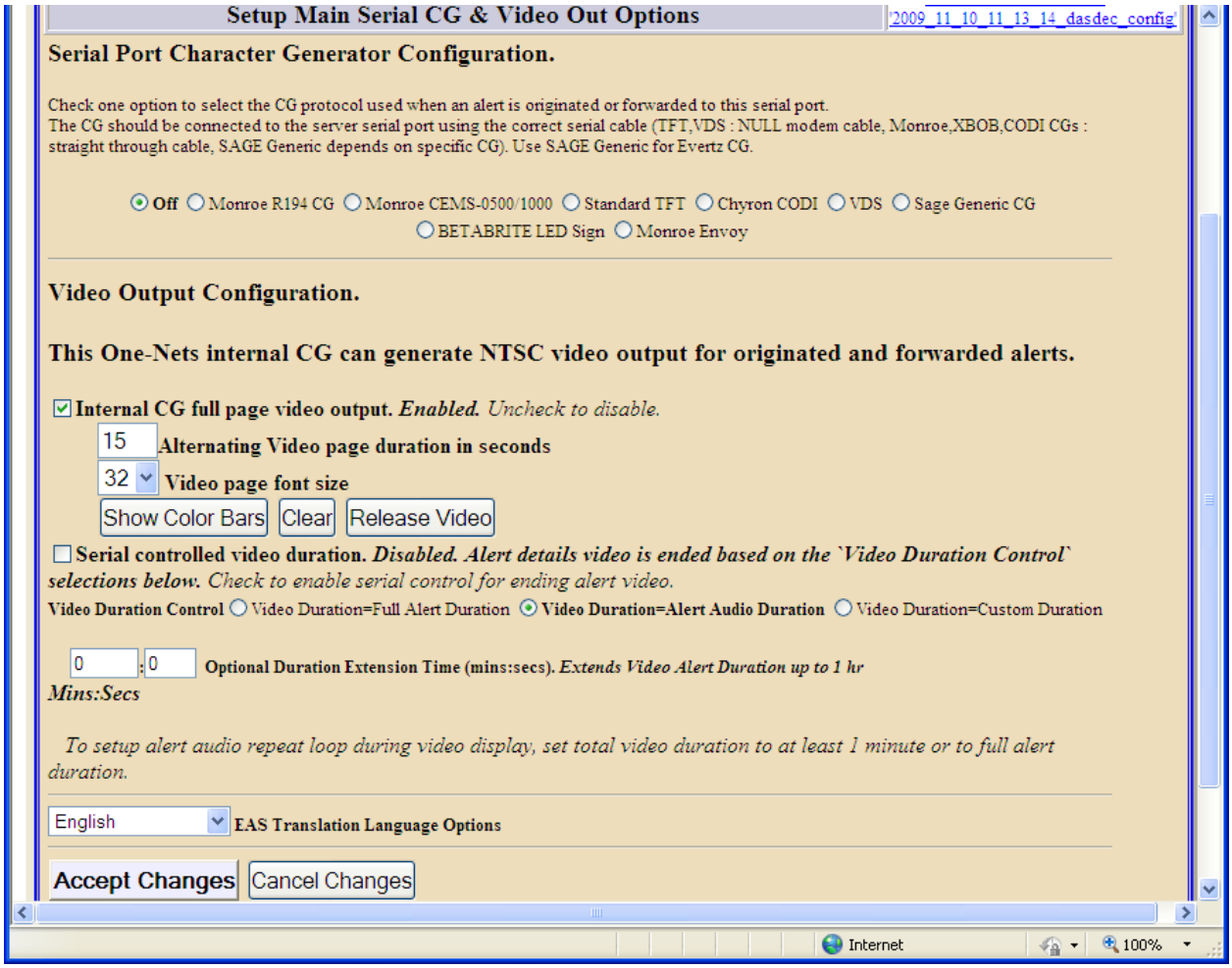
Setting the Radio Types and Frequencies:
Use this screen to program the installed radios. For each radio select the radio type by clicking on the button to the left of each type. Next, click on the frequency box and type in the desired frequency for an approved radio station and click on the Accept Typed Frequency Change button to accept the change. This frequency **MUST** correspond to an approved LP1 or LP2 for your area. You can obtain a list of approved stations from the EAS Chairman of your state. Repeat this process for all of the installed radios.

After setting all of the radios, verify that level is OK. This is displayed to the right of the frequency box. To listen to the radio signal, you can select where to route the signal to clicking on the appropriate button. In most cases the audio is routed to the front panel speaker. Make sure to turn off the feature when done testing.


Setup Audio
TDX Enabled
Software Version:1.8-0
Decoder Audio
Encoder Audio
Audio Output Levels/Tests
Radio Tuners
Radio Configuration
NOTE: Typed frequency edits require clicking the Accept Typed Frequency Change button, while all other changes to radio settings are effective IMMEDIATELY!
The DASDEC-1EN server optionally provides up to 3 internal radio tuners that can be used as decoder input.
This page allows the tuning of each available radio. Each radio can be tuned to an AM,FM, or NOAA Weather radio station. The first 2 radios are decoded by the Main Audio device. Make sure the Audio Input Source is set to internal. The third tuner, if available, is decoded by a required Aux 1 PCI soundcard device.
1. FM AM NOAA Weather Radio
102.5 MHz FM (87.9 - 107.9) Level:VERY STRONG (87%)
Accept Typed Frequency Change
Cancel Typed Frequency
This radio provides audio for Decoder 'LP 1(L1)'
Listen on: Front Panel Speaker Main Audio Aux 1 Audio
2. FM AM NOAA Weather Radio
92.9 MHz FM (87.9 - 107.9) Level:WEAK (55%)
Accept Typed Frequency Change
Cancel Typed Frequency
This radio provides audio for Decoder 'LP 2(R1)'
Listen on: Front Panel Speaker Main Audio Aux 1 Audio
3. FM AM NOAA Weather Radio
103.3 MHz FM (87.9 - 107.9) Level:No Audio Detected (30%)
Accept Typed Frequency Change
Cancel Typed Frequency
This radio provides audio for Decoder 'Left 2(L2)'
Listen on: Front Panel Speaker Main Audio Aux 1 Audio

5.7. Setup > Video/CG: Video/Character Generator Configuration.

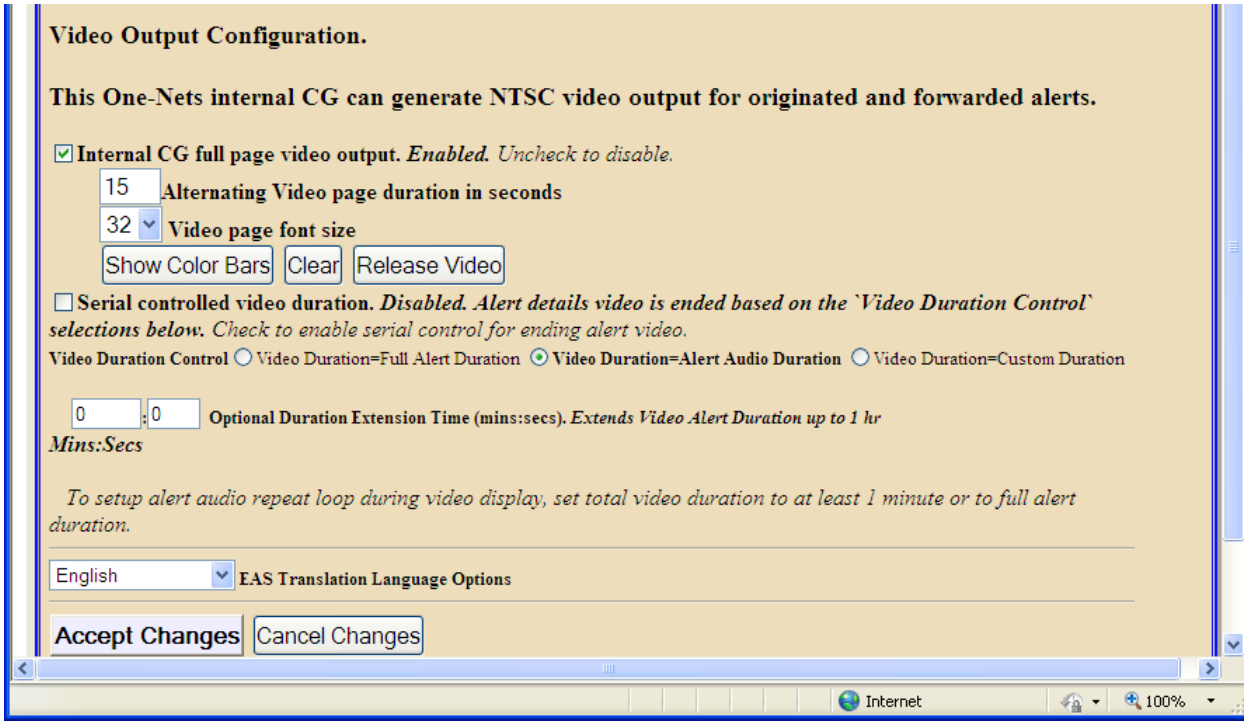
The One-Net can be set to run a variety of character generators over its external serial port. The One-Net can also provide native analog NTSC composite video output.


Setup Main Serial CG & Video Out Options
2009_11_10_11_13_14_dasdec_config
Serial Port Character Generator Configuration.
Check one option to select the CG protocol used when an alert is originated or forwarded to this serial port.
The CG should be connected to the server serial port using the correct serial cable (TFT,VDS : NULL modem cable, Monroe,XBOB,CODI CGs : straight through cable, SAGE Generic depends on specific CG). Use SAGE Generic for Evertz CG.
Off
Monroe R194 CG
Monroe CEMS-0500/1000
Standard TFT
Chyron CODI
VDS
Sage Generic CG
BETABRITE LED Sign
Monroe Envoy
Video Output Configuration.
This One-Nets internal CG can generate NTSC video output for originated and forwarded alerts.
Internal CG full page video output. Enabled. Uncheck to disable.
15
Alternating Video page duration in seconds
32
Video page font size
Show Color Bars
Clear
Release Video
Serial controlled video duration. Disabled. Alert details video is ended based on the `Video Duration Control` selections below. Check to enable serial control for ending alert video.
Video Duration Control
Video Duration=Full Alert Duration
Video Duration=Alert Audio Duration
Video Duration=Custom Duration
0
:0
Optional Duration Extension Time (mins:secs). Extends Video Alert Duration up to 1 hr
Mins:Secs
To setup alert audio repeat loop during video display, set total video duration to at least 1 minute or to full alert duration.
English
EAS Translation Language Options
Accept Changes
Cancel Changes
Internet
100%

Serial Port Character Generator
Use this screen to configure the Main Serial controlled CG.

Select the CG to be used. There are eight supported character generator protocols. Choose the appropriate one for the connected serial device. The Chyron CODI, VDS, and Sage Generic character generator protocols also present further configuration options. These are easy to understand from the presentations. The CODI protocol also presents options for generating test patterns.

Repeat Alert Video Display
This setting allows the EAS message to be displayed multiple times while applicable. It can be set from no repeats to 10 repeats. The time between repeats can also be set with a minimum time of 2 minutes.


Video Output Configuration.
This One-Nets internal CG can generate NTSC video output for originated and forwarded alerts.
Internal CG full page video output. Enabled. Uncheck to disable.
15
Alternating Video page duration in seconds
32
Video page font size
Show Color Bars
Clear
Release Video
Serial controlled video duration. Disabled. Alert details video is ended based on the `Video Duration Control` selections below. Check to enable serial control for ending alert video.
Video Duration Control
Video Duration=Full Alert Duration
Video Duration=Alert Audio Duration
Video Duration=Custom Duration
0
0
Optional Duration Extension Time (mins:secs). Extends Video Alert Duration up to 1 hr
Mins:Secs
To setup alert audio repeat loop during video display, set total video duration to at least 1 minute or to full alert duration.
English
EAS Translation Language Options
Accept Changes
Cancel Changes
Internet
100%

Internal CG full page video output
Check the box to disable or enable details video output. If enabled, you can also choose from **Full Alert Duration**, **Alert Audio Duration**, or **Custom Alert Video Duration** to set the exact video duration in minutes and seconds. A set of details pages will be played out of the RCA video output port on the back of the One-Net.

Alternating Video page durations in seconds
This value determines how long each video page is displayed if the EAS message is more than one page long.
Serial controlled video duration

Check this box to display the Internal CG video message as long as serial controlled CG is active.

Optional Duration Extension Time
Entering a time in a mins:secs format will extend the time that the details video message is displayed. The maximum setting is 1 hr.

EAS Translation Language Options
There are three translation options. They are English, English and Spanish, and Spanish.

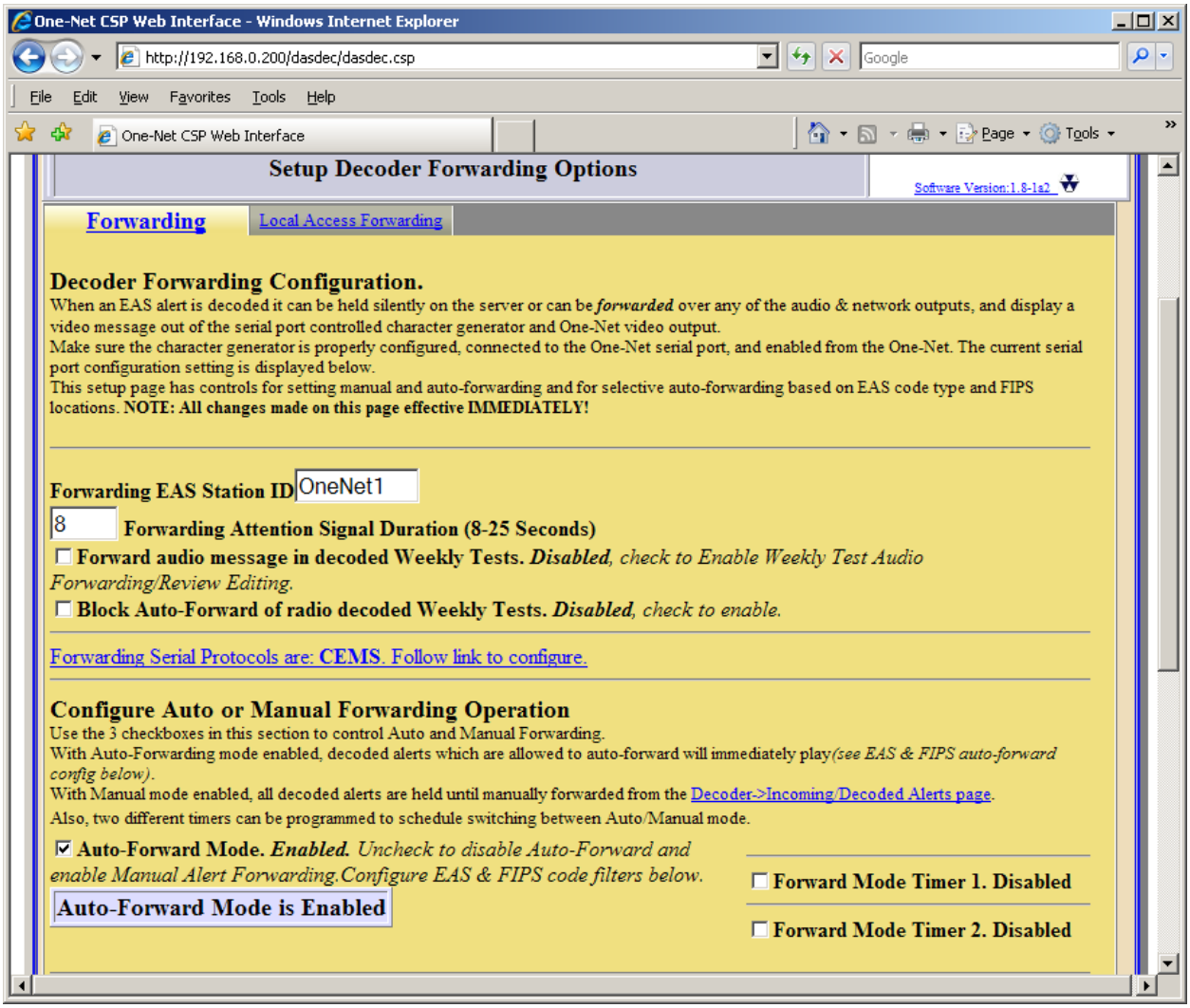
Click Accept Changes to make changes apply.

5.8. Setup > Decoder

By default, a One-Net will run two EAS decoder channels from the Main audio device. It will decode EAS out of the box. However, a variety of useful options can be configured to tune the decoder for operation in a specific system within a specific geographic region. All decoder configuration options can be accessed through the **Setup** > **Decoder** page.

5.8.1. Setup Decoder > Forwarding

The Decoder Forwarding page is used to configure EAS alert forwarding. Forwarding is when a decoded EAS is relayed out an audio output of the One-Net, presumably into a broadcast audio signal, and display a video message out of the serial port controlled character generator and One-Net video output. Forwarding can be automatic or manual. Forwarding can be set so that all alerts to any FIPS area are forwarded, or it can be highly constrained so that only a select few EAS codes to specific FIPS areas are forwarded. Use this screen to configure station identity settings and to select EAS alerts that are forwarded. To select the actual audio output port(s) for forwarded alerts, a different Web Interface page is used see **Setup Audio** > **Decoder Audio**. Forwarded alerts are logged on the **Decoder** > **Forwarded Alerts** display page.


One-Net CSP Web Interface - Windows Internet Explorer
http://192.168.0.200/dasdec/dasdec.csp
Google
File Edit View Favorites Tools Help
One-Net CSP Web Interface
Page Tools
Setup Decoder Forwarding Options
Software Version: 1.8-1a2
Forwarding
Local Access Forwarding
Decoder Forwarding Configuration.
When an EAS alert is decoded it can be held silently on the server or can be forwarded over any of the audio & network outputs, and display a video message out of the serial port controlled character generator and One-Net video output.
Make sure the character generator is properly configured, connected to the One-Net serial port, and enabled from the One-Net. The current serial port configuration setting is displayed below.
This setup page has controls for setting manual and auto-forwarding and for selective auto-forwarding based on EAS code type and FIPS locations. NOTE: All changes made on this page effective IMMEDIATELY!
Forwarding EAS Station ID OneNet1
8 Forwarding Attention Signal Duration (8-25 Seconds)
Forward audio message in decoded Weekly Tests. Disabled, check to Enable Weekly Test Audio Forwarding/Review Editing.
Block Auto-Forward of radio decoded Weekly Tests. Disabled, check to enable.
Forwarding Serial Protocols are: CEMS. Follow link to configure.
Configure Auto or Manual Forwarding Operation
Use the 3 checkboxes in this section to control Auto and Manual Forwarding.
With Auto-Forwarding mode enabled, decoded alerts which are allowed to auto-forward will immediately play(see EAS & FIPS auto-forward config below).
With Manual mode enabled, all decoded alerts are held until manually forwarded from the Decoder->Incoming/Decoded Alerts page.
Also, two different timers can be programmed to schedule switching between Auto/Manual mode.
Auto-Forward Mode. Enabled. Uncheck to disable Auto-Forward and enable Manual Alert Forwarding.Configure EAS & FIPS code filters below.
Auto-Forward Mode is Enabled
Forward Mode Timer 1. Disabled
Forward Mode Timer 2. Disabled

Forwarding EAS Station ID
Type up to 8 characters in this text field to identify the Station ID for this One-Net. This code will be included in all forwarded alerts; both manually forwarded and automatically forwarded alerts. NOTE: Forwarding Station ID is different from Encoder Station ID.

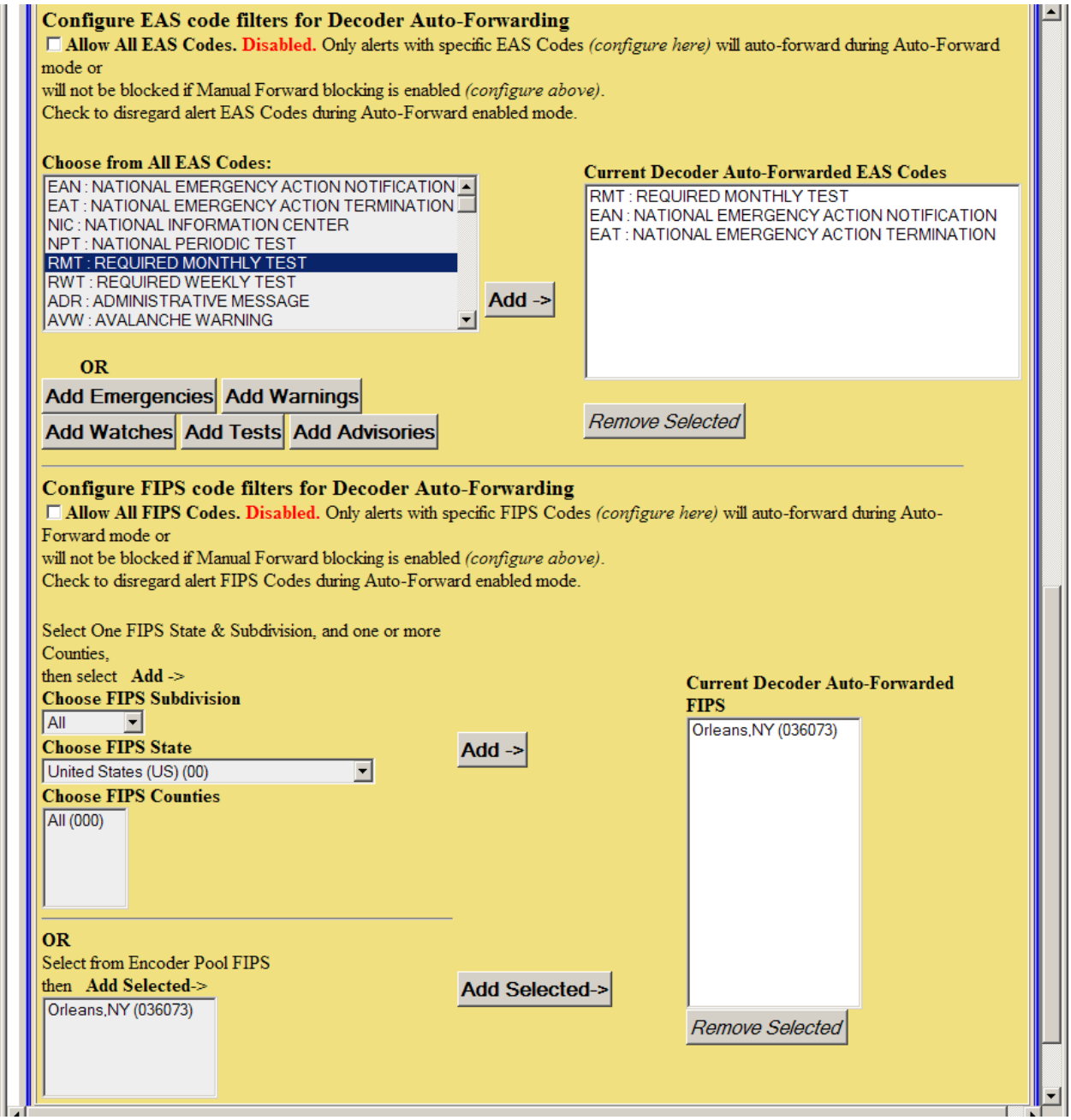
Forwarding Attention Signal Duration
Set the duration in seconds (from 8 to 25) of the attention signal tone played during alert forwarding.

Forward audio message in decoded Weekly Tests
Click the box to select or de-select the Forwarding of the Weekly Test audio. When set to forward, if audio is sent along with the Weekly Test it will play out along with the text portion of the message.

Block Auto-Forward of radio Decoded Weekly Tests
This feature is only used in conjunction with the EAS-NET communications between One-Nets. Click the box to select or de-select Blocking of Weekly tests received from the radio receivers of an EAS-NET decode device. The Weekly tests that are received via EAS-NET will forward.

Auto-Forward or Manual Mode
Click the box to select or de-select Alert Auto-Forwarding or Manual Alert Forwarding. When Manual forwarding is set, a user of the One-Net must use the Web Interface to actively forward the alert from the Decoder Active Decoded list display. During Auto-Forward mode, the One-Net will forward alerts without review or intervention. NOTE: Emergency National Activation (EAN) and Termination (EAT) alerts always forward automatically.

Duplicate Alert Handling for Decoder Auto-Forwarding
If an incoming EAS alert is determined to be an *exact* duplicate of a previously decoded, it is completely discarded and a message is logged in the operation log. Alerts that are duplicates except for Station ID or ORG code are stored as a decoded alert and can be optionally auto-forwarded or held. The three selections allow the user to either forward or discard the duplicate alert. An example of this would be receiving a Required Monthly Test from both LP1 and LP2, displaying the first alert and discarding the second one.


Configure EAS code filters for Decoder Auto-Forwarding
Allow All EAS Codes. Disabled. Only alerts with specific EAS Codes (configure here) will auto-forward during Auto-Forward mode or
will not be blocked if Manual Forward blocking is enabled (configure above).
Check to disregard alert EAS Codes during Auto-Forward enabled mode.
Choose from All EAS Codes:
EAN : NATIONAL EMERGENCY ACTION NOTIFICATION
EAT : NATIONAL EMERGENCY ACTION TERMINATION
NIC : NATIONAL INFORMATION CENTER
NPT : NATIONAL PERIODIC TEST
RMT : REQUIRED MONTHLY TEST
RWT : REQUIRED WEEKLY TEST
ADR : ADMINISTRATIVE MESSAGE
AVW : AVALANCHE WARNING
Add ->
Current Decoder Auto-Forwarded EAS Codes
RMT : REQUIRED MONTHLY TEST
EAN : NATIONAL EMERGENCY ACTION NOTIFICATION
EAT : NATIONAL EMERGENCY ACTION TERMINATION
OR
Add Emergencies
Add Warnings
Add Watches
Add Tests
Add Advisories
Remove Selected
Configure FIPS code filters for Decoder Auto-Forwarding
Allow All FIPS Codes. Disabled. Only alerts with specific FIPS Codes (configure here) will auto-forward during Auto-Forward mode or
will not be blocked if Manual Forward blocking is enabled (configure above).
Check to disregard alert FIPS Codes during Auto-Forward enabled mode.
Select One FIPS State & Subdivision, and one or more Counties,
then select Add ->
Choose FIPS Subdivision
All
Choose FIPS State
United States (US) (00)
Choose FIPS Counties
All (000)
Add ->
Current Decoder Auto-Forwarded FIPS
Orleans,NY (036073)
OR
Select from Encoder Pool FIPS
then Add Selected->
Orleans,NY (036073)
Add Selected->
Remove Selected

Configure EAS Types for Decoder Auto-Forwarding
Click the box to select or de-select auto-forwarding for specific EAS Codes or ALL EAS codes.

Configure Specific EAS Codes
Choose each EAS code to auto-forward. Then click Add. Codes selected for auto-forwarding will appear in the **Current Decoder Auto-Forwarded EAS Codes** field to the right.

To remove a code from the auto-forward list, select a line in the **Current Decoder Auto-Forwarded EAS Codes** field and click Remove Selected. All operations are immediate.

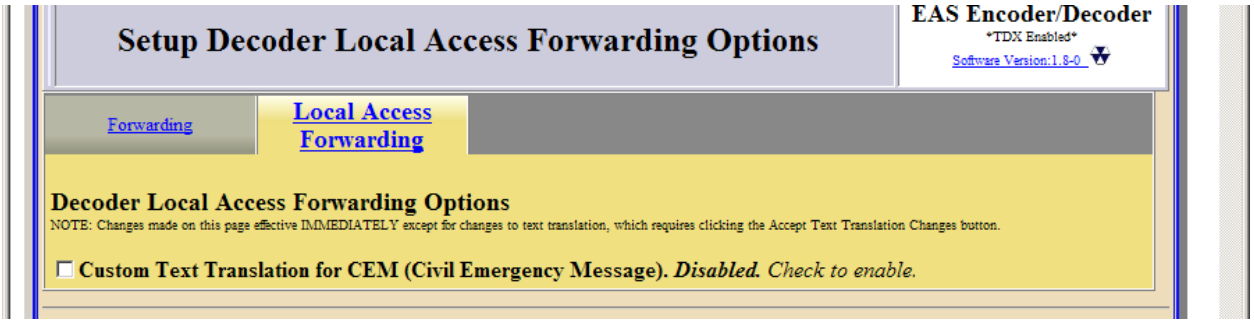
Configure FIPS for Decoder Auto-Forwarding
Click the box to select or de-select auto-forwarding for specific FIPS Codes or ALL FIPS codes.

Specific FIPS Codes
Choose each FIPS location code for the Subdivision, State (or territory) and the County (or County Equivalent), which should be auto-forwarded. Then click Add. FIPS locations selected for automatic forwarding will appear in the **Current Decoder Auto-Forwarded FIPS** field to the right.

To remove a location from the auto-forward FIPS list, select a line in the **Current Decoder Auto-Forwarded FIPS** field and click Remove Selected. All operations are immediate.

5.8.2. Local Access Forwarding

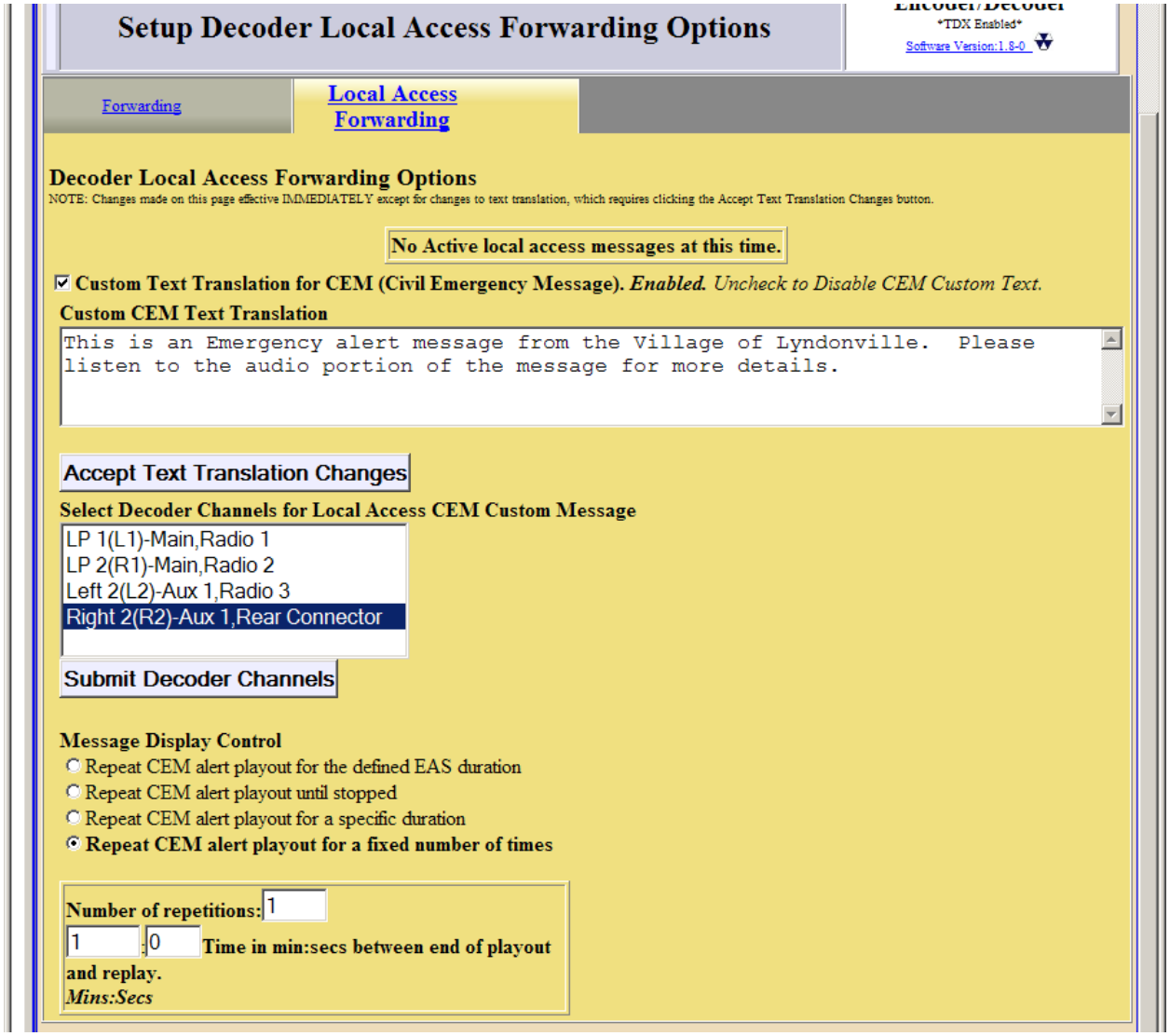
This feature, when enabled, allows a custom translation of a Civil Emergency Message when it is received. The main use for this feature is in conjunction with the Monroe Electronics model 988-telephone device. When an alert is active a cancel button is displayed on this page so the message can be terminated.


Setup Decoder Local Access Forwarding Options
EAS Encoder/Decoder
TDX Enabled
Software Version:1.8-0
Forwarding
Local Access Forwarding
Decoder Local Access Forwarding Options
NOTE: Changes made on this page effective IMMEDIATELY except for changes to text translation, which requires clicking the Accept Text Translation Changes button.
Custom Text Translation for CEM (Civil Emergency Message). Disabled. Check to enable.

Custom CEM Text Translation
This box is where the actual text that the customer will see is typed. After the message is typed the "Accept Text Translation Changes" button must be pressed.

Select Decoder Channel
This selection box is where the user programs which of the audio inputs is listened to for the CEM to be used with the custom translation. All other audio sources will display the standard translation of the CEM message.

Message Display Control
This selection determines how the message is repeated.


Setup Decoder Local Access Forwarding Options
TDX Enabled
Software Version:1.8-0
Forwarding
Local Access Forwarding
Decoder Local Access Forwarding Options
NOTE: Changes made on this page effective IMMEDIATELY except for changes to text translation, which requires clicking the Accept Text Translation Changes button.
No Active local access messages at this time.
Custom Text Translation for CEM (Civil Emergency Message). Enabled. Uncheck to Disable CEM Custom Text.
Custom CEM Text Translation
This is an Emergency alert message from the Village of Lyndonville. Please listen to the audio portion of the message for more details.
Accept Text Translation Changes
Select Decoder Channels for Local Access CEM Custom Message
LP 1(L1)-Main,Radio 1
LP 2(R1)-Main,Radio 2
Left 2(L2)-Aux 1,Radio 3
Right 2(R2)-Aux 1,Rear Connector
Submit Decoder Channels
Message Display Control
Repeat CEM alert playout for the defined EAS duration
Repeat CEM alert playout until stopped
Repeat CEM alert playout for a specific duration
Repeat CEM alert playout for a fixed number of times
Number of repetitions: 1
1 : 0 Time in min:secs between end of playout and replay.
Mins:Secs

5.9. Setup > Encoder

EAS alert encoding, called origination, is when the digital codes and alert audio tones and message defined by the EAS protocol, are assembled and played over a broadcast medium for which EAS decoders might be listening. The One-Net makes this task very easy. Every action needed to encode and send EAS is available on a single page of the One-Net Web Interface.

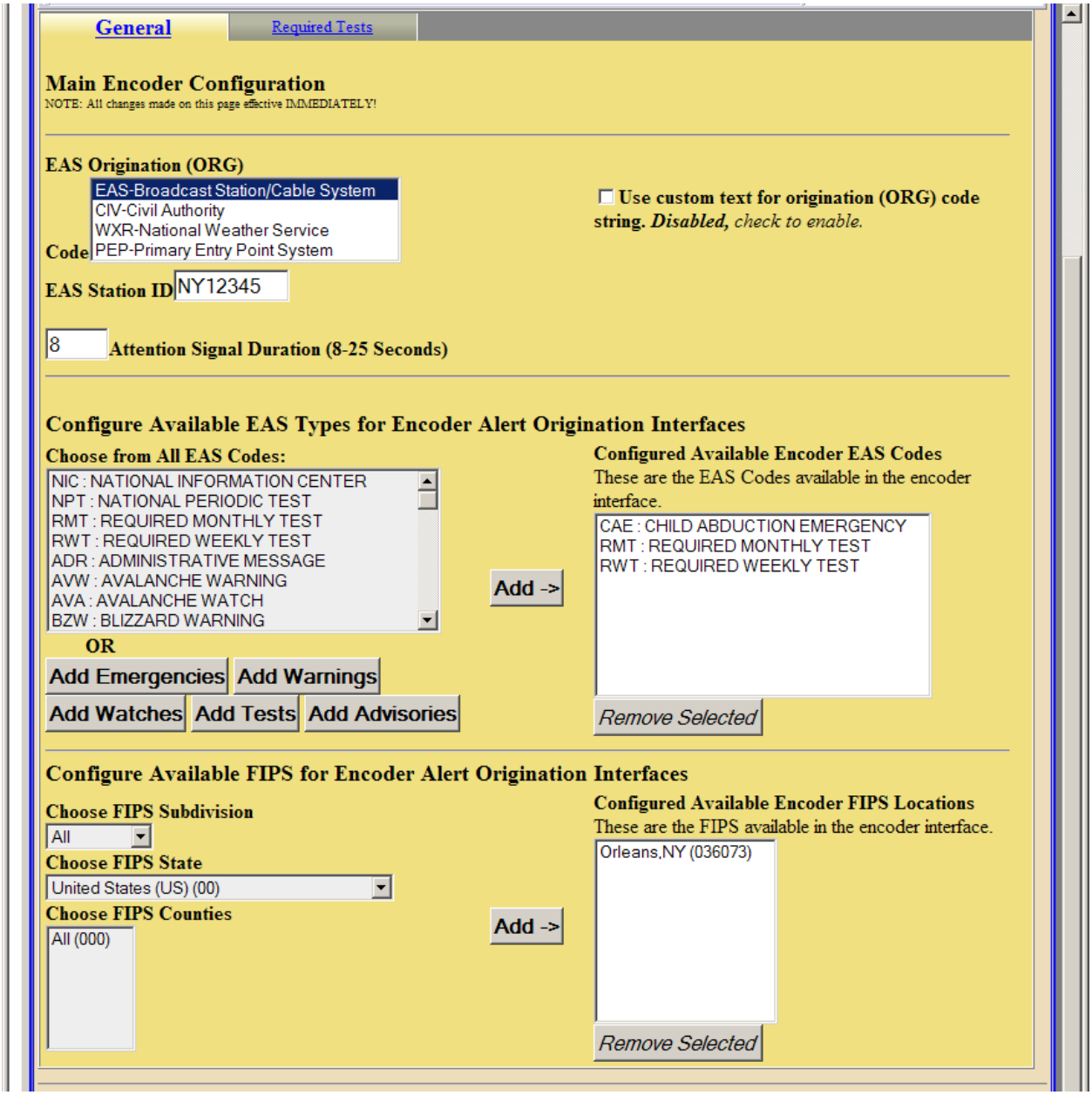
There are two sub-pages on the **Setup Encoder** screen:

General **Required Tests**

To run EAS encoding, a One-Net must be configured with a valid Encoder license key. This is entered on the **Setup > Server** page. Without a valid license key, the One-Net will not show a **Setup Encoder** page nor the main **Encoder** menu tab. See section 5.1 Setup Server. There are some configuration tasks that need to be done on the **Setup > Encoder** pages before you use the One-Net encoder.

5.9.1. Setup Encoder > General

The **General** sub-page is used to set the EAS Origination code, the EAS station ID, and commonly used alert types and FIPS locations. This page allows configuration of some basic items needed to use the EAS encoder. *NOTE: Unlike most configuration pages, changes made to this page are effective immediately and do not require clicking an Accept Changes button.*

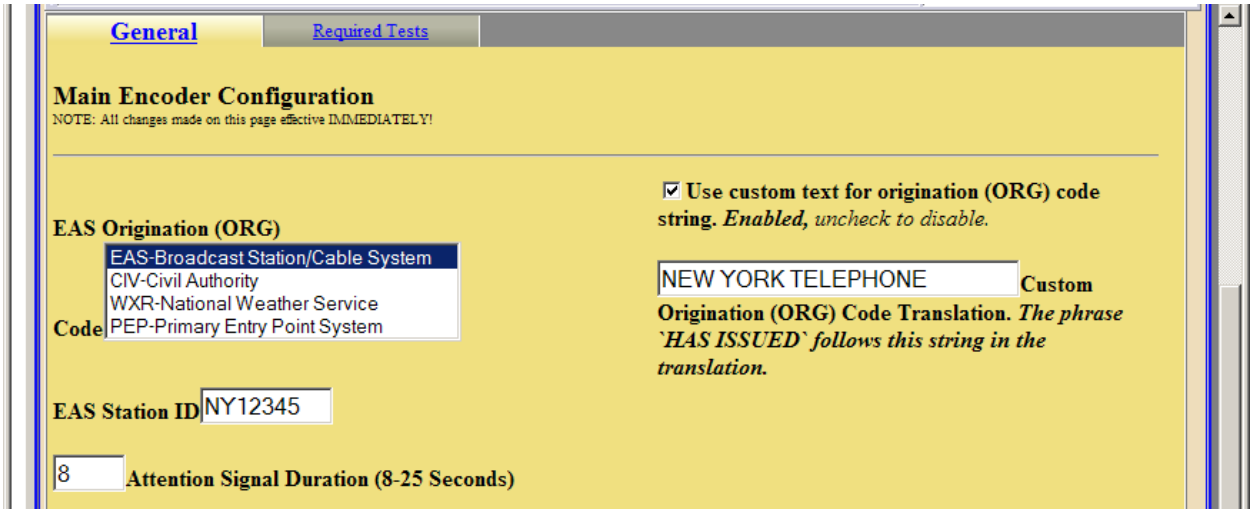


EAS Origination Code

Select the EAS Originator code for your system from the selection menu. This code categorizes the type of organization sending the EAS. Select the code that best describes your organization:

- Broadcast station or cable system: Choose EAS
- Civil authorities: Choose CIV
- National Weather Service: Choose WXR
- Primary Entry Point System: Choose PEP

This code is placed in the EAS alert message when the encoder originates an EAS alert. This same code is used for both manually forwarded alerts and automatically forwarded alerts. If these descriptions do not match your application (ie Telephone company) you should select EAS, and place a check in the box for custom text for translation for Origination Code. When this is enabled you will be able to customize how the text is displayed. An example of this is shown below. When a Weekly test is activated by the One-Net the displayed the text will be "NEW YORK TELEPHONE HAS ISSUED A REQUIRED WEEKLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Orleans,NY; AT 10:36 AM ON MAR 23, 2006 EFFECTIVE UNTIL 10:51 AM. MESSAGE FROM NY12345 . "


General
Required Tests
Main Encoder Configuration
NOTE: All changes made on this page effective IMMEDIATELY!
Use custom text for origination (ORG) code string. Enabled, uncheck to disable.
EAS Origination (ORG) Code
EAS-Broadcast Station/Cable System
CIV-Civil Authority
WXR-National Weather Service
PEP-Primary Entry Point System
NEW YORK TELEPHONE
Custom Origination (ORG) Code Translation. The phrase `HAS ISSUED` follows this string in the translation.
EAS Station ID
NY12345
8
Attention Signal Duration (8-25 Seconds)

EAS Station ID

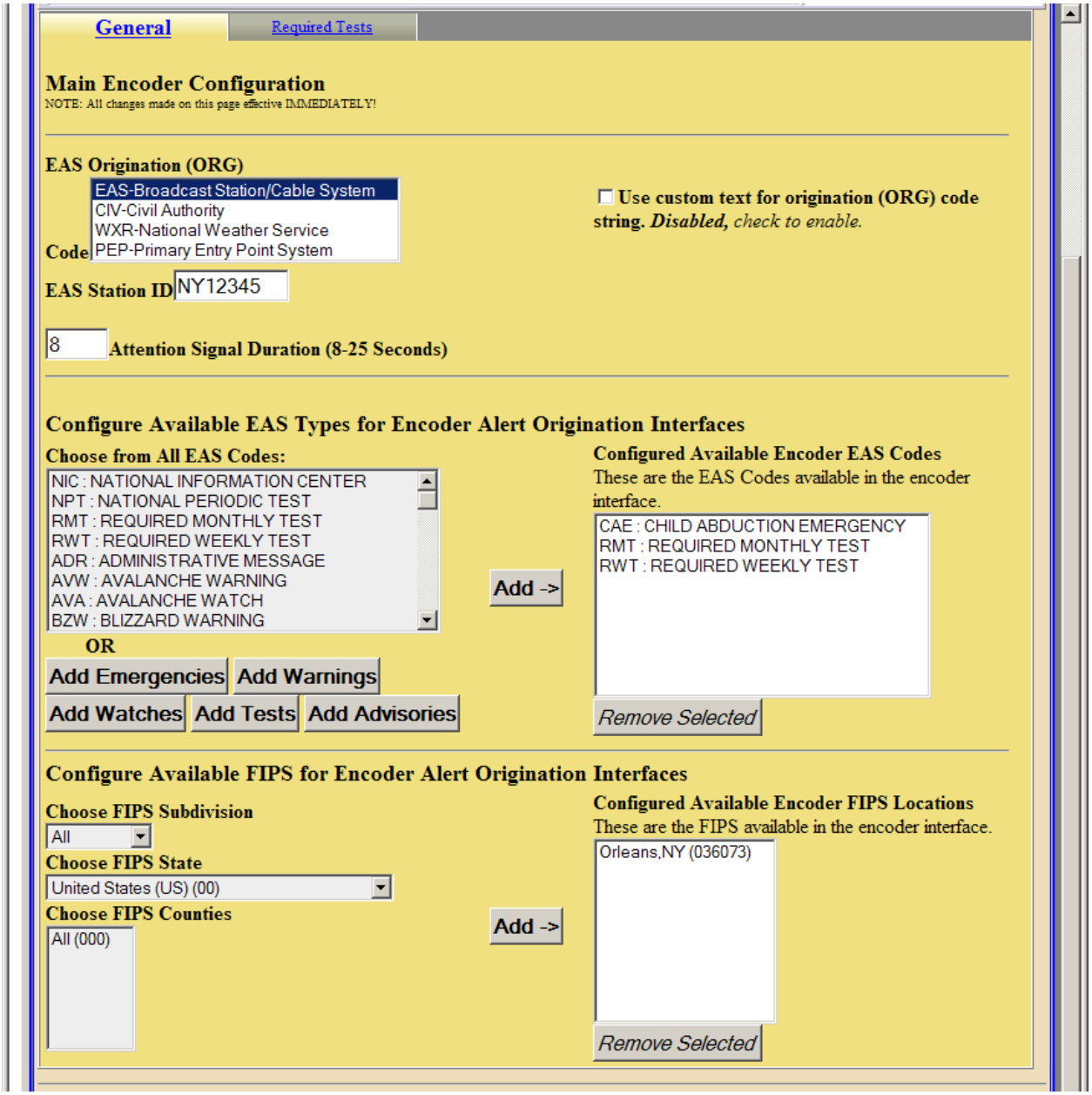
Type up to 8 characters in this text field to identify the Station ID for this One-Net. This code will be included in all originated alerts; both manually forwarded and automatically forwarded alerts. NOTE: Encoder Station ID is different from Forwarding Station ID.

Attention Signal Duration

This control allows setting the duration of the two-tone attention signal from 8-25 seconds.

Configure Available EAS Codes for Encoder

The One-Net must be configured for the types of EAS alerts that will be used during alert encoding. This is done by constructing a list of alert types.



- To build or edit the list, choose an EAS code type from the pop down menu and click Add. Codes selected for encoding will appear in the **Configured Available Encoder EAS Codes** box to the right. Be sure and add all common EAS types that will be used when encoding alerts from this One-Net. If you find you are missing a code during encoding, you can edit the pool list at any time. To add a group of messages of a certain type, you can click one of the buttons (ie Add Watches).
- To remove a code from the **Configured Available Encoder EAS Codes** list, select and click Remove Selected.

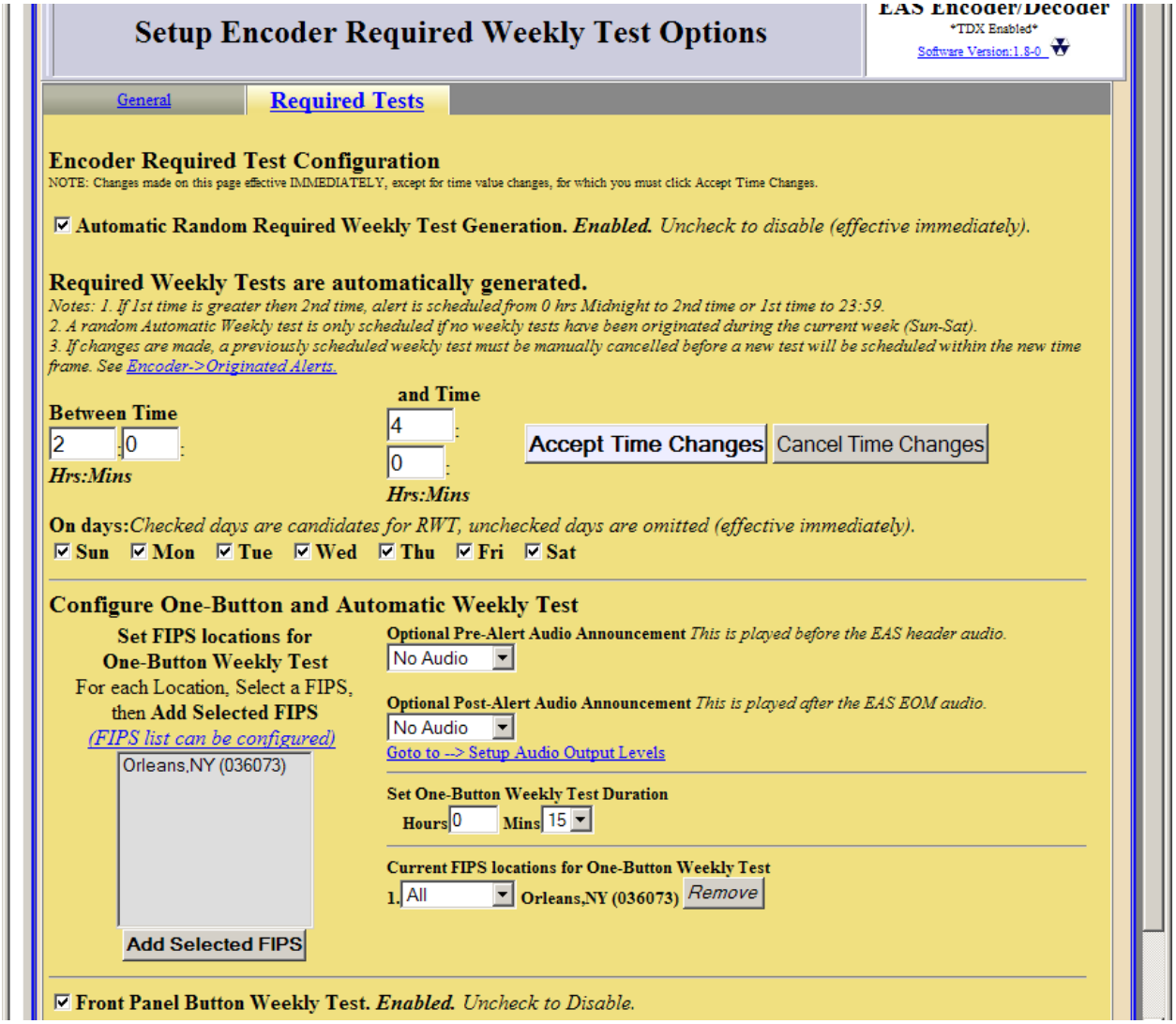
All operations are immediate.

Configured Available Encoder FIPS Locations

The One-Net must also be configured for the commonly used FIPS locations that will be used during alert encoding. Just as for the EAS Codes list, a commonly used list of FIPS locations need to be constructed from the list of all possible FIPS. The list is referred to on the One-Net as the Configured Available Encoder FIPS Locations. There are thousands of FIPS location codes, so building this list of commonly used FIPS codes saves time during typical alert encoding. In the rare event that other FIPS locations are needed, the list can be edited at any time.

- Choose each FIPS location code for the Subdivision, State (or territory) and the County (or County Equivalent). Then click Add. FIPS locations selected for automatic forwarding will appear in the **Configured Available Encoder FIPS Locations** field to the right. Make sure and add all the common FIPS codes that will be used when encoding alerts from this One-Net. Otherwise, while constructing an alert, you may have to return to this screen to add any FIPS codes that are missing from the Configured Available Encoder FIPS Locations list on the **Encoder > Send EAS >General EAS** screen.
- To remove a location from the **Configured Available Encoder FIPS Locations**, select a line in the **Configured Available Encoder FIPS Locations** field and click Remove Selected.
- All operations are immediate.
- If when encoding an alert on the screen **Encoder > Send EAS > General EAS** screen, you find that a FIPS location code is missing, there is a link on that screen back to the **Setup > Encoder > General** screen so you can amend the FIPS pool.

5.9.2. Setup Encoder > Required Tests


Setup Encoder Required Weekly Test Options
EAS Encoder/Decoder
TDX Enabled
Software Version: 1.8-0
General
Required Tests
Encoder Required Test Configuration
NOTE: Changes made on this page effective IMMEDIATELY, except for time value changes, for which you must click Accept Time Changes.
Automatic Random Required Weekly Test Generation. Enabled. Uncheck to disable (effective immediately).
Required Weekly Tests are automatically generated.
Notes: 1. If 1st time is greater then 2nd time, alert is scheduled from 0 hrs Midnight to 2nd time or 1st time to 23:59.
2. A random Automatic Weekly test is only scheduled if no weekly tests have been originated during the current week (Sun-Sat).
3. If changes are made, a previously scheduled weekly test must be manually cancelled before a new test will be scheduled within the new time frame. See Encoder->Originated Alerts.
Between Time
2 : 0
Hrs:Mins
and Time
4 : 0
Hrs:Mins
Accept Time Changes
Cancel Time Changes
On days: Checked days are candidates for RWT, unchecked days are omitted (effective immediately).
Sun Mon Tue Wed Thu Fri Sat
Configure One-Button and Automatic Weekly Test
Set FIPS locations for One-Button Weekly Test
For each Location, Select a FIPS, then Add Selected FIPS
(FIPS list can be configured)
Orleans,NY (036073)
Add Selected FIPS
Optional Pre-Alert Audio Announcement This is played before the EAS header audio.
No Audio
Optional Post-Alert Audio Announcement This is played after the EAS EOM audio.
No Audio
Goto to --> Setup Audio Output Levels
Set One-Button Weekly Test Duration
Hours 0 Mins 15
Current FIPS locations for One-Button Weekly Test
1. All Orleans,NY (036073) Remove
Front Panel Button Weekly Test. Enabled. Uncheck to Disable.

The **Required Tests** sub-page is used to issue pre-configured Weekly Test alerts. The One-Net can be configured to send a Required Weekly test with a single button push.

Required Weekly Tests

- The tests can be automatically generated within a daily time frame. You can configure the test for specific FIPS codes and the duration of the test.
- You can select the box to enable or disable Automatic Random Required Weekly Test Generation. When enabled you can edit the times and days that you want the Automatic Required Weekly Test to occur by changing the Between times, and the On Days followed by clicking the Accept Time Changes button.

Configure One-Button and Automatic Weekly Test.

- Set **FIPS locations** for and **Duration** of the weekly test.
- Select a FIPS location(s), and then click Add Selected FIPS.
- The FIPS location(s) added will appear in the list of **Current FIPS locations for One-Button Weekly Test** to the right.
- You can edit the subdivision in the first field for each location.
- You can remove a FIPS location from the list-using Remove.
- You can Enable/Disable the front panel button activation of a Weekly Test.

5.10. Setup > Net Alerts

One of the benefits of the One-Nets inherent network nature is that it can support a variety of methods for network forwarding/broadcast of EAS alerts. Presently the One-Net supports DVS-168 network protocol, DVS-644/SCTE-18 alert messaging, Streaming Mpeg, and Remote activation of relays using the Hub Controller Model R190. If interfaces are not available, follow the link to License Key Manager to Setup > Server (see section 5.1). Select one of the protocols for editing by using the provided tabs at the top of the Net Alerts Configuration page. A separate interface is provided per Network protocol interface type.

There are four tabbed sub-pages on the **Setup Net Alerts** screen. They are:

DVS168 **DVS644** **Stream Mpeg** **HUB Controller(R190)**

5.10.1. DVS168

If DVS-168 is available on the One-Net, use this tab to enable this protocol for forwarding and/or sending alerts.

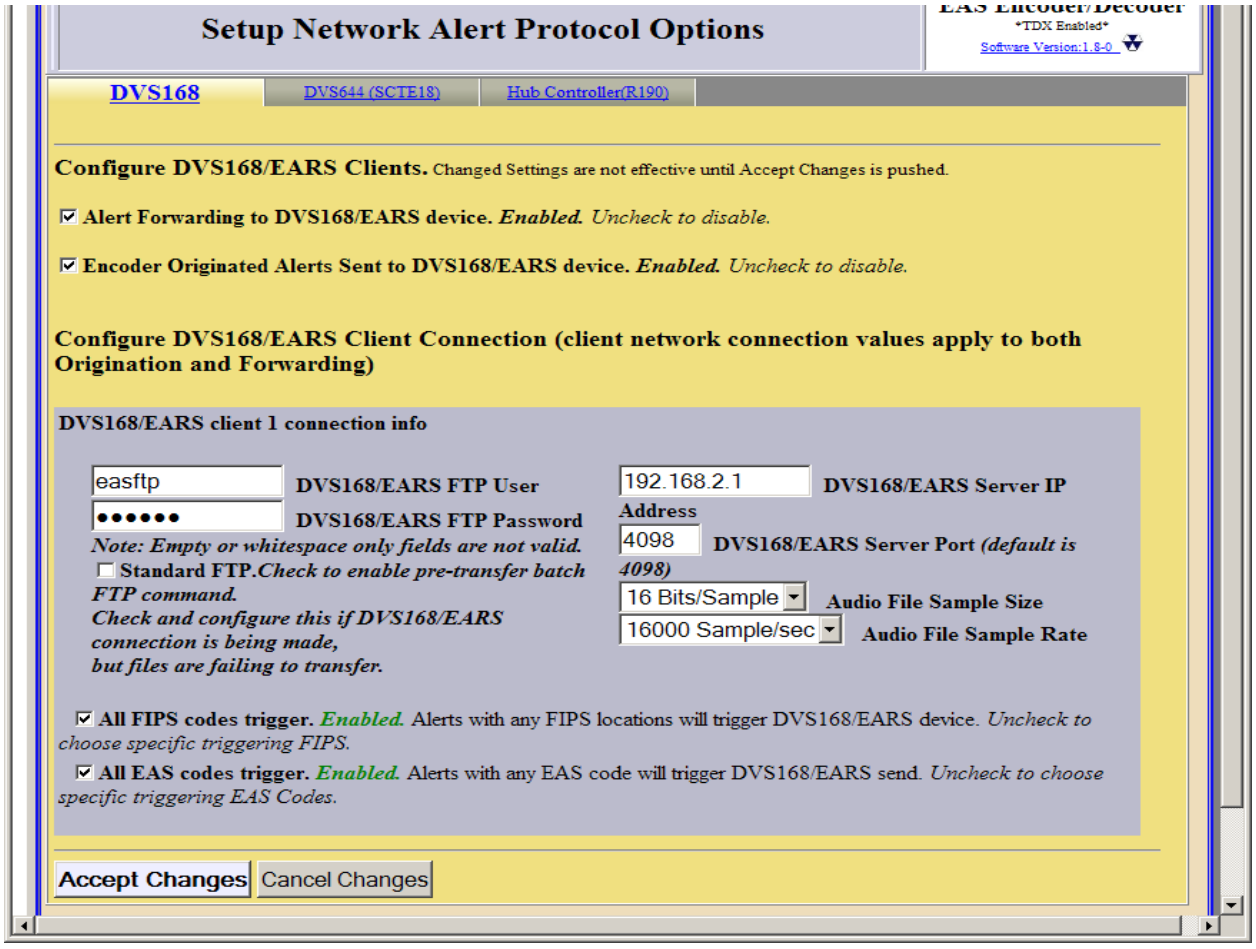
Setup Network Alert Protocol Options
TDX Enabled
Software Version: 1.8-0
DVS168
DVS644 (SCTE18)
Hub Controller(R190)
Configure DVS168/EARS Clients. Changed Settings are not effective until Accept Changes is pushed.
Alert Forwarding to DVS168/EARS device. Disabled. Check to enable.
Encoder Originated Alert Sent to DVS168/EARS device. Disabled. Check to enable.
Accept Changes
Cancel Changes

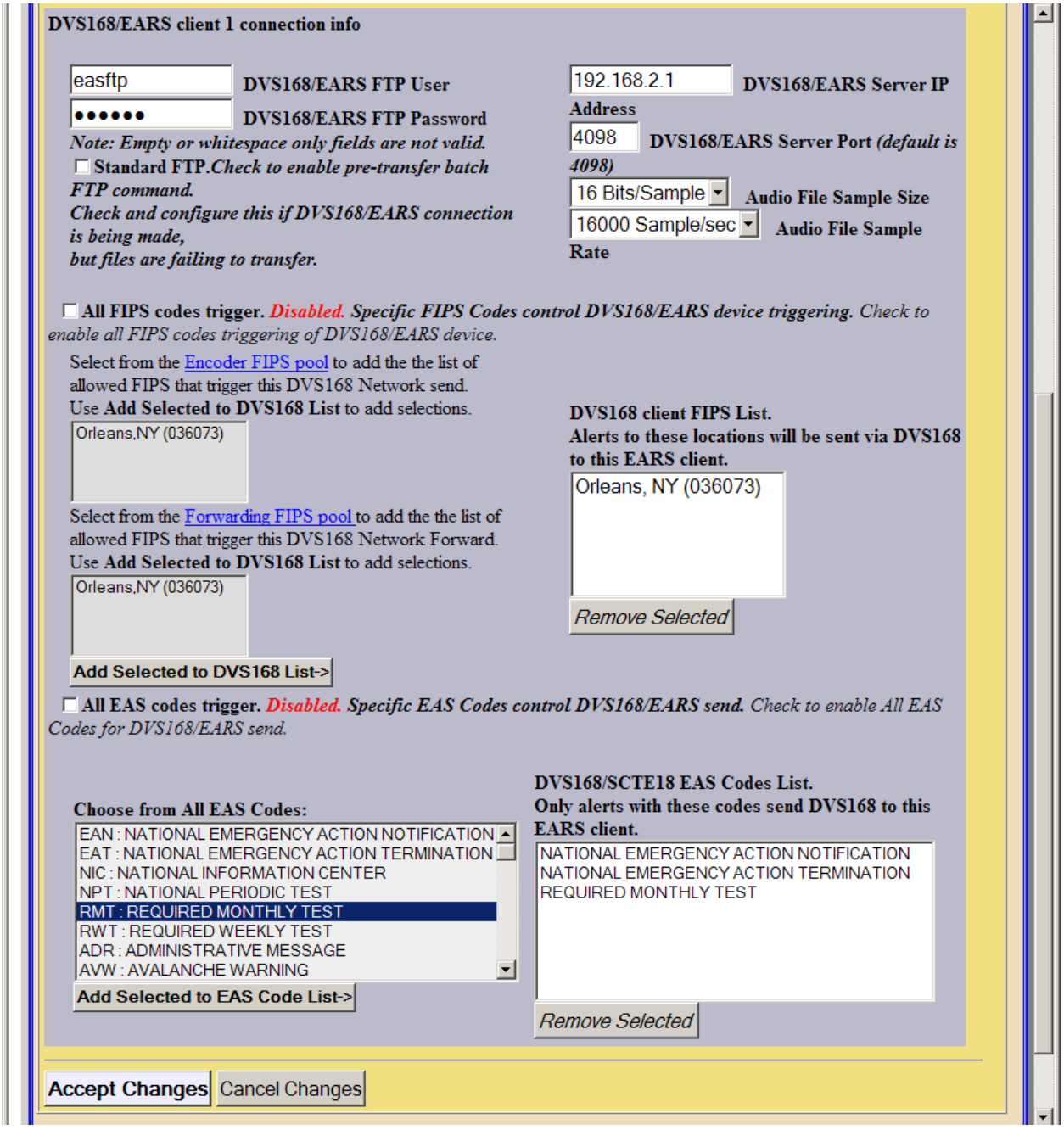
Alert Forwarding to DVS168/EARS device.
Placing a check in this box will allow Alerts that are received from a Broadcaster to be forwarded through the One-Net and sent out using the DVS168 protocol.

Encoder Alert Send to DVS168/EARS device.
Placing a check in this box will allow Alerts that are originated by the One-Net to be sent out using the DVS168 protocol.

Alert Forwarding and sending to DVS168/EARS Client
Once forwarding and/or sending have been enabled, four information fields must be configured to identify the DVS-168/EARS host. See the provided screenshot. Enter the IP address, the IP port, the FTP user and password, select Audio File Sample Size, and the Audio File Sample Rate (Default is 16000 Sample/sec). Alerts with all FIPS codes can be forwarded by placing a check mark in the box to enable all FIPS to trigger DVS168/EARS device. Alerts for specific FIPS areas can also be filtered/passed through the protocol. Remove the check mark from the box that says **All FIPS codes trigger** the DVS168/EARS device to enable FIPS forwarding control. When configured, select a list of FIPS codes that will be used to check against the incoming forwarded alert. If any of these FIPS are included in the incoming forwarded alert, the alert will be sent to the DVS-168 client.

Remove the check mark from the box that says **All EAS codes trigger** the DVS168/EARS device to enable EAS forwarding control. When configured, select a list of EAS codes that will be used to check against the incoming forwarded alert. If any of these EAS are included in the incoming forwarded alert, the alert will be sent to the DVS-168 client.

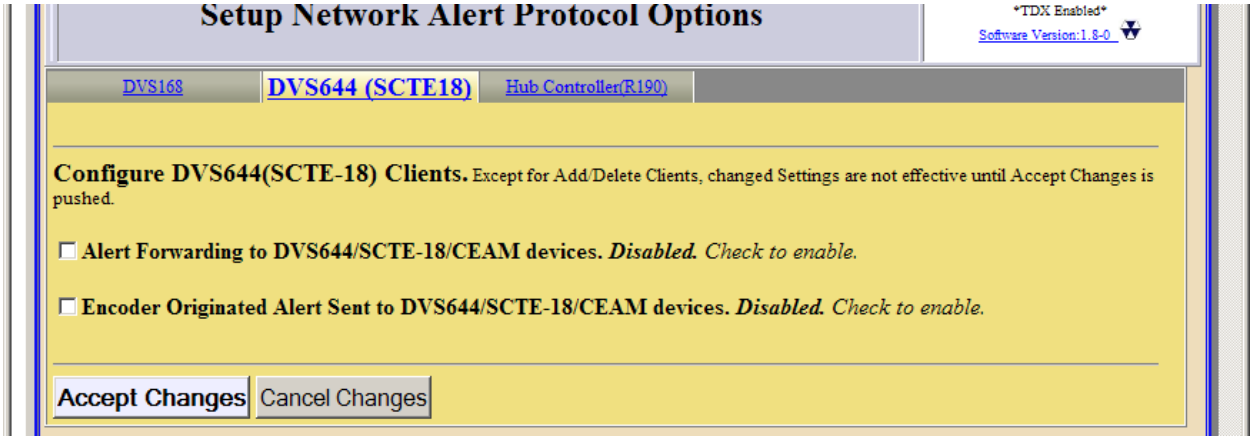

Setup Network Alert Protocol Options
TDX Enabled
Software Version: 1.8-0
DVS168
DVS644 (SCTE18)
Hub Controller(R190)
Configure DVS168/EARS Clients. Changed Settings are not effective until Accept Changes is pushed.
Alert Forwarding to DVS168/EARS device. Enabled. Uncheck to disable.
Encoder Originated Alerts Sent to DVS168/EARS device. Enabled. Uncheck to disable.
Configure DVS168/EARS Client Connection (client network connection values apply to both Origination and Forwarding)
DVS168/EARS client 1 connection info
easftp
DVS168/EARS FTP User
DVS168/EARS FTP Password
Note: Empty or whitespace only fields are not valid.
Standard FTP. Check to enable pre-transfer batch FTP command.
Check and configure this if DVS168/EARS connection is being made, but files are failing to transfer.
192.168.2.1
DVS168/EARS Server IP Address
4098
DVS168/EARS Server Port (default is 4098)
16 Bits/Sample
Audio File Sample Size
16000 Sample/sec
Audio File Sample Rate
All FIPS codes trigger. Enabled. Alerts with any FIPS locations will trigger DVS168/EARS device. Uncheck to choose specific triggering FIPS.
All EAS codes trigger. Enabled. Alerts with any EAS code will trigger DVS168/EARS send. Uncheck to choose specific triggering EAS Codes.
Accept Changes
Cancel Changes


DVS168/EARS client 1 connection info
easftp
DVS168/EARS FTP User
DVS168/EARS FTP Password
Note: Empty or whitespace only fields are not valid.
Standard FTP.Check to enable pre-transfer batch FTP command.
Check and configure this if DVS168/EARS connection is being made,
but files are failing to transfer.
192.168.2.1
DVS168/EARS Server IP Address
4098
DVS168/EARS Server Port (default is 4098)
16 Bits/Sample
Audio File Sample Size
16000 Sample/sec
Audio File Sample Rate
All FIPS codes trigger. Disabled. Specific FIPS Codes control DVS168/EARS device triggering. Check to enable all FIPS codes triggering of DVS168/EARS device.
Select from the Encoder FIPS pool to add the the list of allowed FIPS that trigger this DVS168 Network send.
Use Add Selected to DVS168 List to add selections.
Orleans,NY (036073)
Select from the Forwarding FIPS pool to add the the list of allowed FIPS that trigger this DVS168 Network Forward.
Use Add Selected to DVS168 List to add selections.
Orleans,NY (036073)
Add Selected to DVS168 List->
DVS168 client FIPS List.
Alerts to these locations will be sent via DVS168 to this EARS client.
Orleans, NY (036073)
Remove Selected
All EAS codes trigger. Disabled. Specific EAS Codes control DVS168/EARS send. Check to enable All EAS Codes for DVS168/EARS send.
Choose from All EAS Codes:
EAN : NATIONAL EMERGENCY ACTION NOTIFICATION
EAT : NATIONAL EMERGENCY ACTION TERMINATION
NIC : NATIONAL INFORMATION CENTER
NPT : NATIONAL PERIODIC TEST
RMT : REQUIRED MONTHLY TEST
RWT : REQUIRED WEEKLY TEST
ADR : ADMINISTRATIVE MESSAGE
AVW : AVALANCHE WARNING
Add Selected to EAS Code List->
DVS168/SCTE18 EAS Codes List.
Only alerts with these codes send DVS168 to this EARS client.
NATIONAL EMERGENCY ACTION NOTIFICATION
NATIONAL EMERGENCY ACTION TERMINATION
REQUIRED MONTHLY TEST
Remove Selected
Accept Changes
Cancel Changes

When an alert is forwarded to a DVS-168 client, a WAV file of the EAS audio is constructed and a text file of the alert details is constructed. These are FTPed to the DVS-168 client. Then a socket is temporarily opened from the One-Net to the DVS-168 client, and a control message is sent that describes the alert. The Operation Log will log each of these actions and their success or failure.

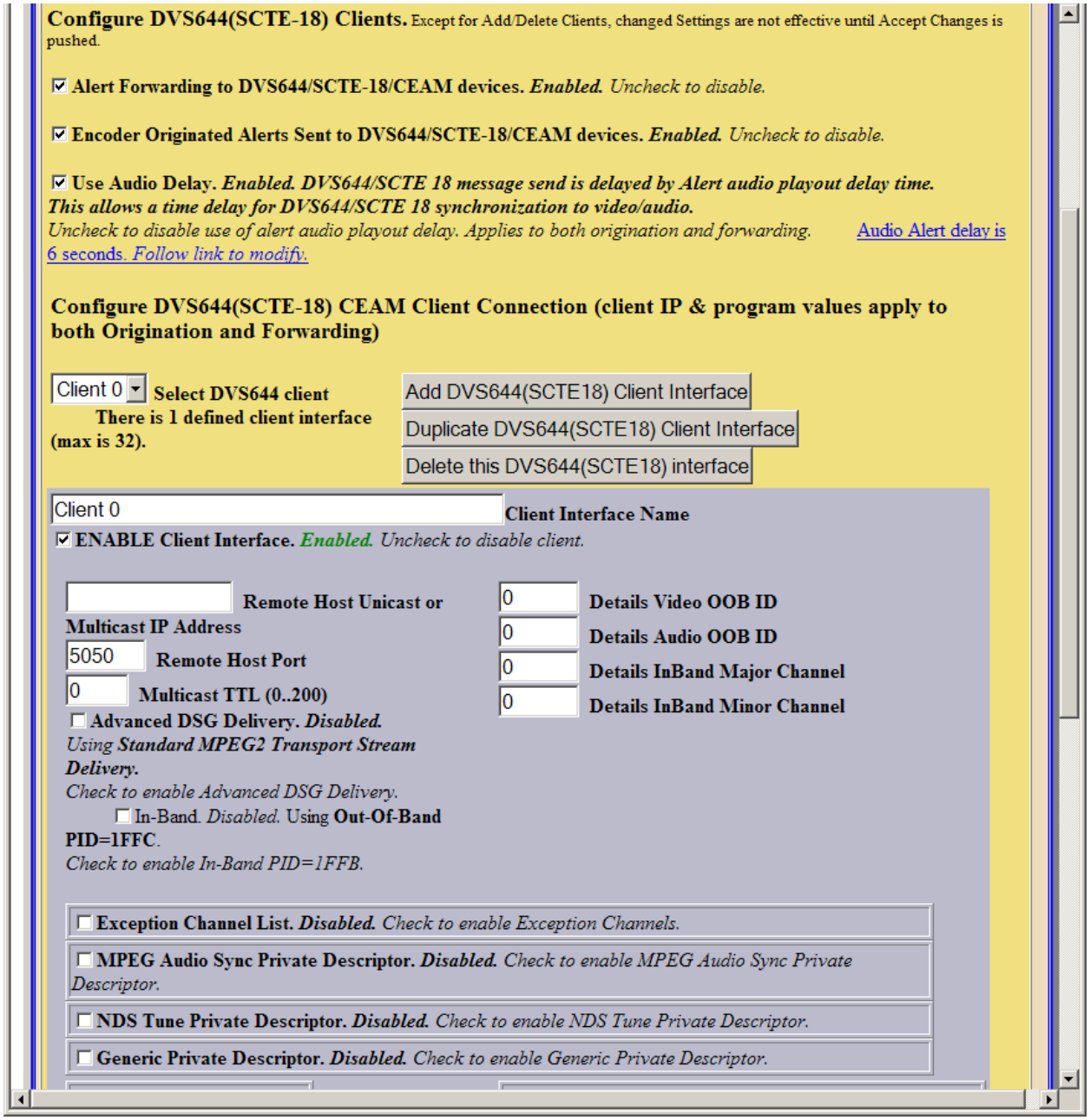
5.10.2. DVS644

If DVS-644 (SCTE 18) is available on the One-Net, use the Alert Forwarding and/or the Encoder Alert Send to DVS644 device toggles to enable this protocol for forwarded alerts and/or originated alerts. At least one of these toggles must be enabled to allow editing. Accept Changes must be pressed before changes to these toggles are saved.


Setup Network Alert Protocol Options
TDX Enabled
Software Version:1.8-0
DVS168
DVS644 (SCTE18)
Hub Controller(R190)
Configure DVS644(SCTE-18) Clients. Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed.
Alert Forwarding to DVS644/SCTE-18/CEAM devices. Disabled. Check to enable.
Encoder Originated Alert Sent to DVS644/SCTE-18/CEAM devices. Disabled. Check to enable.
Accept Changes
Cancel Changes

Alert Forwarding to DVS644/SCTE-18/CEAM devices.
Placing a check in this box will allow Alerts that are received from a Broadcaster to be forwarded through the One-Net and sent out using the DVS644 protocol.

Encoder Alert Send to DVS644/SCTE-18/CEAM devices.
Placing a check in this box will allow Alerts that are originated by the One-Net to be sent out using the DVS644 protocol.


Configure DVS644(SCTE-18) Clients. Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed.
Alert Forwarding to DVS644/SCTE-18/CEAM devices. Enabled. Uncheck to disable.
Encoder Originated Alerts Sent to DVS644/SCTE-18/CEAM devices. Enabled. Uncheck to disable.
Use Audio Delay. Enabled. DVS644/SCTE 18 message send is delayed by Alert audio playout delay time. This allows a time delay for DVS644/SCTE 18 synchronization to video/audio.
Uncheck to disable use of alert audio playout delay. Applies to both origination and forwarding.
Audio Alert delay is 6 seconds. Follow link to modify.
Configure DVS644(SCTE-18) CEAM Client Connection (client IP & program values apply to both Origination and Forwarding)
Client 0
Select DVS644 client
There is 1 defined client interface (max is 32).
Add DVS644(SCTE18) Client Interface
Duplicate DVS644(SCTE18) Client Interface
Delete this DVS644(SCTE18) interface
Client 0
Client Interface Name
ENABLE Client Interface. Enabled. Uncheck to disable client.
Remote Host Unicast or Multicast IP Address
5050
Remote Host Port
0
Multicast TTL (0..200)
Advanced DSG Delivery. Disabled. Using Standard MPEG2 Transport Stream Delivery.
Check to enable Advanced DSG Delivery.
In-Band. Disabled. Using Out-Of-Band PID=1FFC.
Check to enable In-Band PID=1FFB.
0
Details Video OOB ID
0
Details Audio OOB ID
0
Details InBand Major Channel
0
Details InBand Minor Channel
Exception Channel List. Disabled. Check to enable Exception Channels.
MPEG Audio Sync Private Descriptor. Disabled. Check to enable MPEG Audio Sync Private Descriptor.
NDS Tune Private Descriptor. Disabled. Check to enable NDS Tune Private Descriptor.
Generic Private Descriptor. Disabled. Check to enable Generic Private Descriptor.

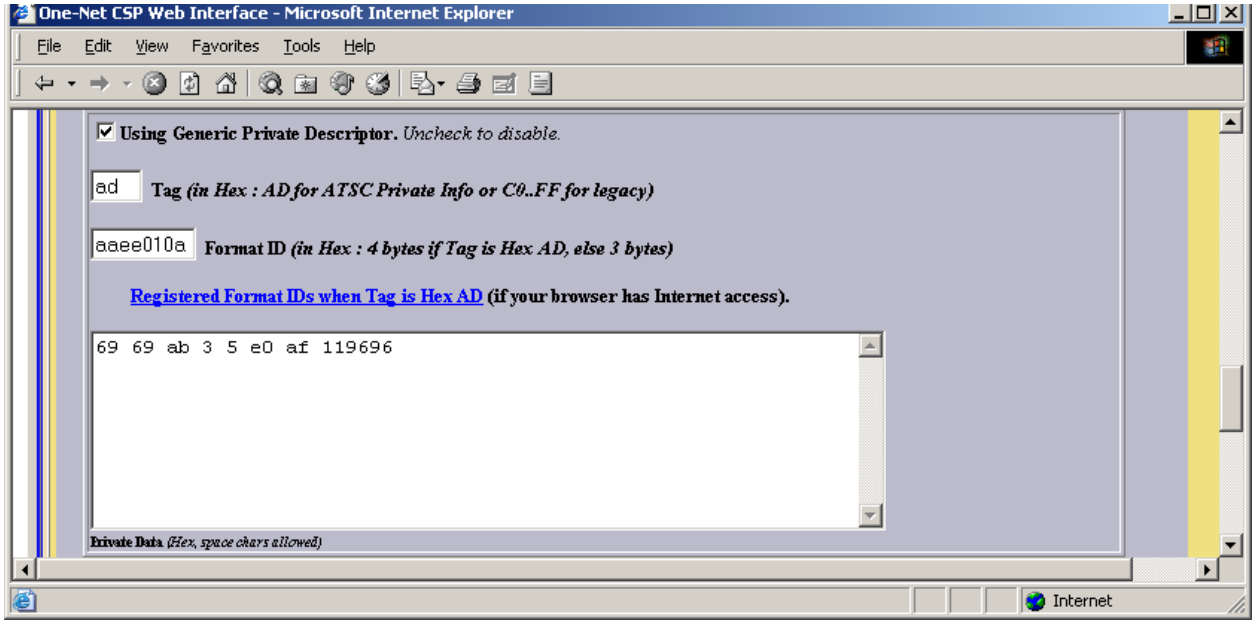
Once enabled, you can create configurations for up to 32 DVS644 (SCTE-18) CEAM (Cable Emergency Alert Message) clients.

Each client can be independently enabled and disabled, allowing an easy way to manage EAS for multiple regions. If no client configurations exist, or if you want a new one, click the Add DVS644 Client Interface button to create a new interface configuration. Careful, client configuration addition and deletion is immediate and cannot be canceled. To edit an existing client interface, select from the provided pull down menu and edit the provided fields. To delete a client configuration, select the client and click on Delete this DVS644 Client Interface. To duplicate a client interface, select the client and click on Duplicate this DVS644 Client Interface.

During alert processing, the Operation Log will log the success or failure of the DVS644 forwarding/origination action per client. *Note: Every client configuration is used for whichever action of alert forwarding and alert origination currently enabled.*

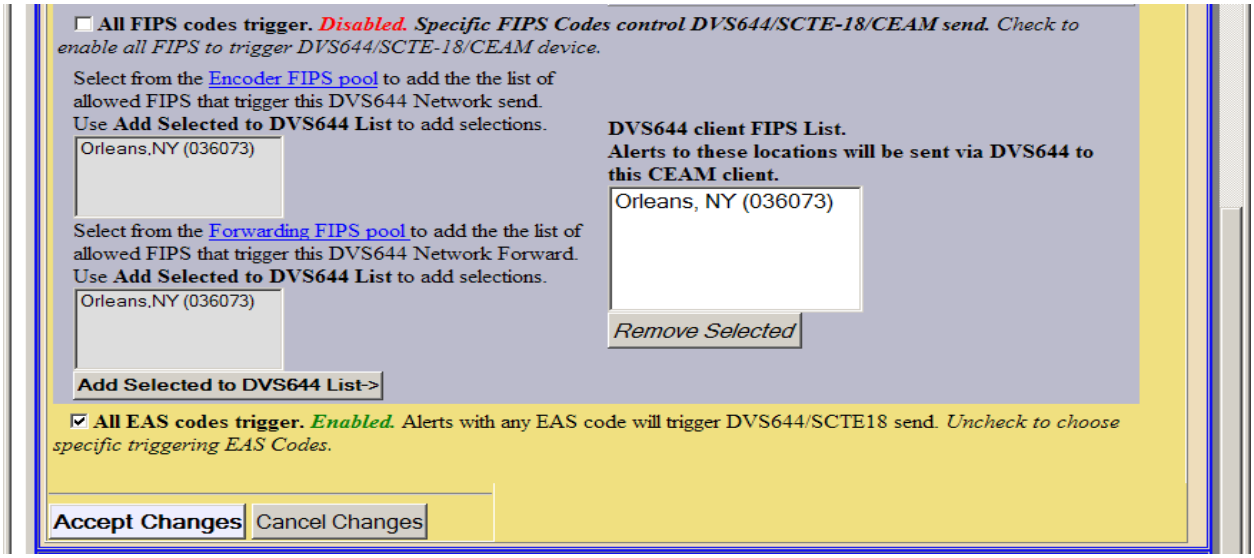
Various information fields must be configured to identify and correctly communicate to the DVS-644 client. The most basic fields are the IP address and port. Enter these according to the specific DVS-644 client. Often this is an MPEG-2 multiplexor, such as a Stream Encryptor Modulator, serving a defined set of digital cable channels. Then decide if In-Band or Out-of-Band (OOB) communication will be used and select the checkbox appropriately. Based upon whether In-Band or Out-of-Band is chosen for the client, set the Details Major/Minor number or the Details OOB channel. This details channel is where the highest priority force tune alerts are sent. EAN/EAT will always cause a force tune to this channel. By using the **Alert Type Priority Selection** interface, other EAS alert codes can have the associated priority number configured based upon a severity rating per client. DVS644/SCTE 18 provides for 16 priority values, however reserved uses for most values mean that in practice, priority values are 0,3,7,11 and 15, with 15 being the highest priority alerts. The priority of 0 has a special meaning. An alert sent with 0 priority will establish a new set-top box or TV sequence number. The sequence number is incremented (modulo 32) whenever an alert is sent with updated information. The One-Net supports this reset mode by allowing an alert to be set to 0 priority. This setting should only be used for one alert, and then changed to 1-15. There is also a field to extend the alert duration past the default One-Net audio duration. Keep in mind that the maximum allowed time for a DVS644/SCTE 18 message is 120 seconds. The One-Net also provides an interface to configure channel exceptions as needed. These are channels that will ignore the alert. The interface is shown enabled in the illustration above. It is enabled/disabled using a checkbox toggle. Another useful feature the One-Net provides is an interface for configuring and sending a private descriptor field.

Select the Generic Private Descriptor toggle to enable and then configure the three provided fields. If the IP target is a multicasting router, make sure to enter a number for the Multicast TTL field that describes the maximum number of routing jumps that will be made before the target clients are reached.


One-Net CSP Web Interface - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Using Generic Private Descriptor. Uncheck to disable.
ad
Tag (in Hex : AD for ATSC Private Info or C0..FF for legacy)
aaee010a
Format ID (in Hex : 4 bytes if Tag is Hex AD, else 3 bytes)
Registered Format IDs when Tag is Hex AD (if your browser has Internet access).
69 69 ab 3 5 e0 af 119696
Private Data (Hex, space chars allowed)
Internet

Alerts for specific FIPS areas and specific EAS Codes can also be filtered before DVS644 is triggered. See the screenshot below. Set the checkbox to enable/disable FIPS filtered trigger control. If enabled, select FIPS codes from the provided lists and Add to the client FIPS list. If any of these FIPS are included in the incoming active forwarded/originated alert, the alert will be sent to this DVS-644 client. With careful use of this feature, and with multiple clients, one One-Net can serve many different cable regions at the same time.

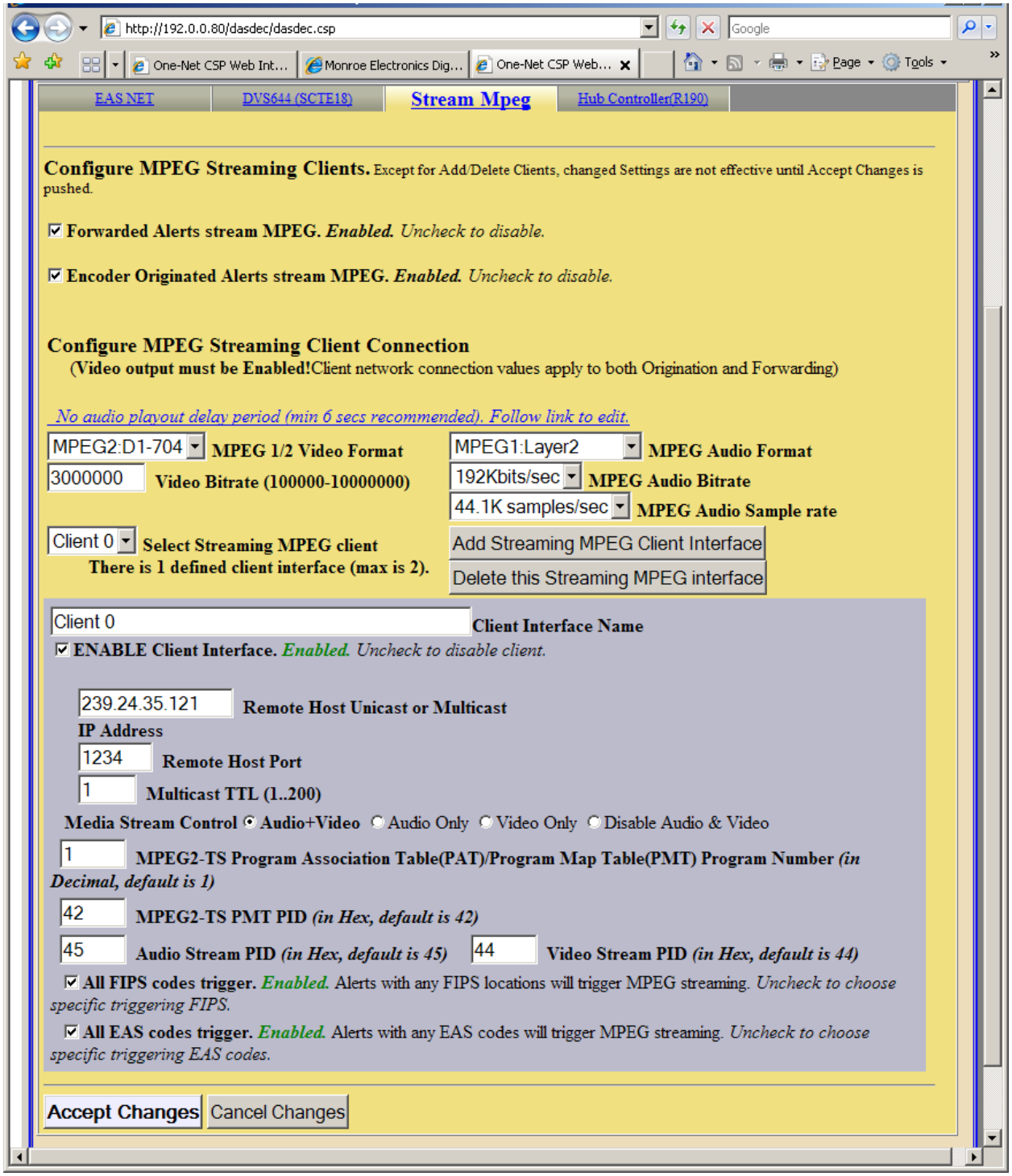
EAS Code filtering can be programmed using the same method as the FIPS code filtering.


All FIPS codes trigger. Disabled. Specific FIPS Codes control DVS644/SCTE-18/CEAM send. Check to enable all FIPS to trigger DVS644/SCTE-18/CEAM device.
Select from the Encoder FIPS pool to add the the list of allowed FIPS that trigger this DVS644 Network send.
Use Add Selected to DVS644 List to add selections.
Orleans,NY (036073)
Select from the Forwarding FIPS pool to add the the list of allowed FIPS that trigger this DVS644 Network Forward.
Use Add Selected to DVS644 List to add selections.
Orleans,NY (036073)
Add Selected to DVS644 List->
DVS644 client FIPS List.
Alerts to these locations will be sent via DVS644 to this CEAM client.
Orleans, NY (036073)
Remove Selected
All EAS codes trigger. Enabled. Alerts with any EAS code will trigger DVS644/SCTE18 send. Uncheck to choose specific triggering EAS Codes.
Accept Changes
Cancel Changes

When done, click on the Accept Changes button to save the configuration.

5.10.3. Streaming MPEG Alert Send

If Streaming MPEG hardware/software is available on the One-Net, a tabbed page will display under Setup > Net Alerts that allows configuration of up to two client targets. As in the other Net Alert pages, use the Alert Forwarding and/or the Encoder Alert Stream toggles to enable/disable the use of streaming MPEG clients when alerts are forwarded and/or originated.

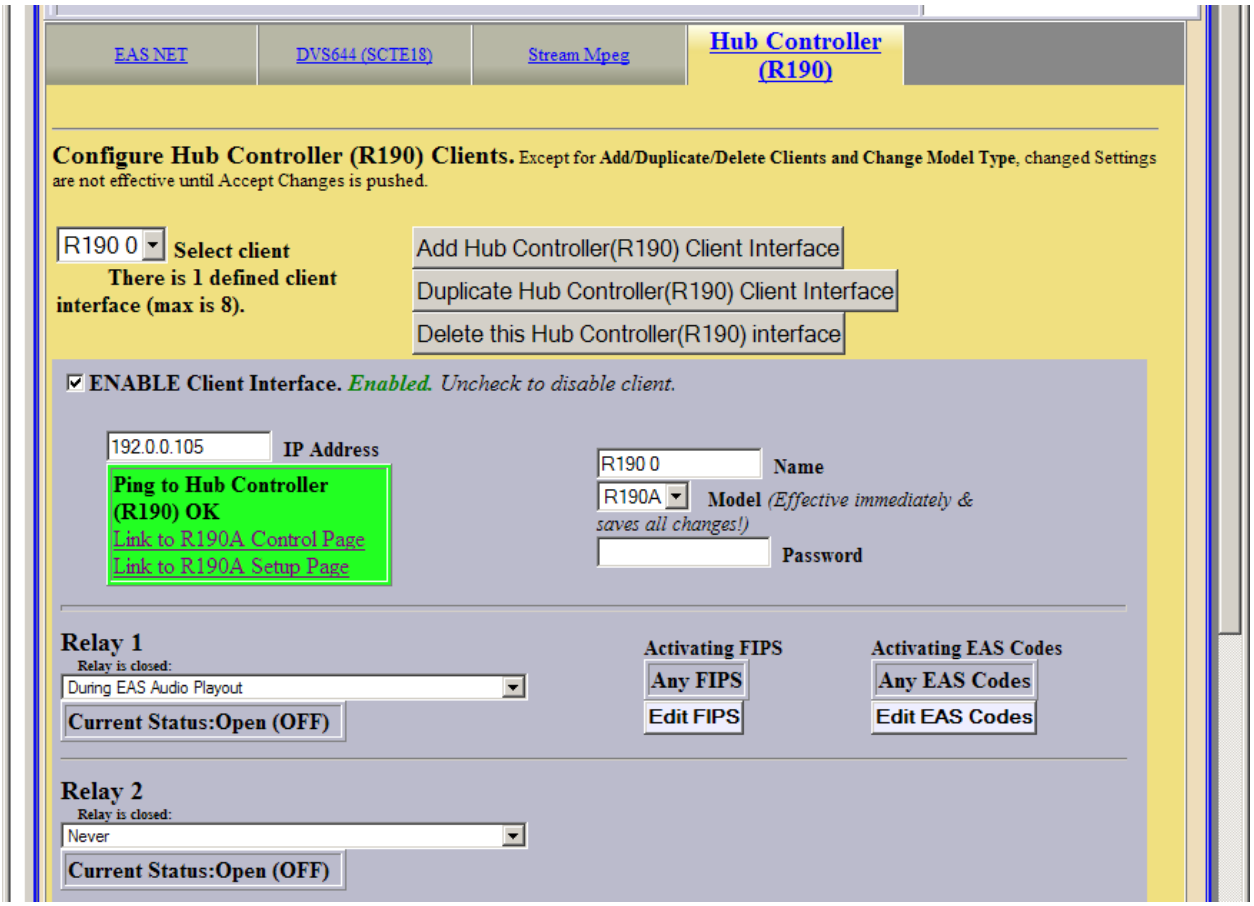

http://192.0.0.80/dasdec/dasdec.csp
EAS NET
DVS644 (SCTE18)
Stream Mpeg
Hub Controller(R190)
Configure MPEG Streaming Clients. Except for Add/Delete Clients, changed Settings are not effective until Accept Changes is pushed.
Forwarded Alerts stream MPEG. Enabled. Uncheck to disable.
Encoder Originated Alerts stream MPEG. Enabled. Uncheck to disable.
Configure MPEG Streaming Client Connection
(Video output must be Enabled!Client network connection values apply to both Origination and Forwarding)
No audio playout delay period (min 6 secs recommended). Follow link to edit.
MPEG2:D1-704
MPEG 1/2 Video Format
3000000
Video Bitrate (100000-10000000)
MPEG1:Layer2
MPEG Audio Format
192Kbits/sec
MPEG Audio Bitrate
44.1K samples/sec
MPEG Audio Sample rate
Client 0
Select Streaming MPEG client
There is 1 defined client interface (max is 2).
Add Streaming MPEG Client Interface
Delete this Streaming MPEG interface
Client 0
Client Interface Name
ENABLE Client Interface. Enabled. Uncheck to disable client.
239.24.35.121
Remote Host Unicast or Multicast IP Address
1234
Remote Host Port
1
Multicast TTL (1..200)
Media Stream Control Audio+Video Audio Only Video Only Disable Audio & Video
1
MPEG2-TS Program Association Table(PAT)/Program Map Table(PMT) Program Number (in Decimal, default is 1)
42
MPEG2-TS PMT PID (in Hex, default is 42)
45
Audio Stream PID (in Hex, default is 45)
44
Video Stream PID (in Hex, default is 44)
All FIPS codes trigger. Enabled. Alerts with any FIPS locations will trigger MPEG streaming. Uncheck to choose specific triggering FIPS.
All EAS codes trigger. Enabled. Alerts with any EAS codes will trigger MPEG streaming. Uncheck to choose specific triggering EAS codes.
Accept Changes
Cancel Changes

Addition/deletion, configuration, and enable/disable for each client interface is handled just like the other Net Alert interfaces described above. Unlike those interfaces, there are a few global settings that affect all Streaming clients. These control the video/audio format and encoding bitrate of the stream (from the hardware). The user can also program if they want Audio/Video, Audio only, or Video only being encoded. To account for the latency of starting up stream encoding and actually streaming, a delay of a few seconds is needed before audio is played for a net forwarded/originated alert. Audio delay status and a link to the configuration field for audio delay is provided.

Streaming MPEG requires very few configuration fields. A unicast or multicast IP address must be set, along with a port. The Multicast TTL value must be set high enough to insure the multicast data is sent past all the LAN routers between the One-Net and the destinations. Also, as with the EAS NET and DVS644 interfaces, FIPS and EAS code based triggering is supported per client.

5.10.4. Hub Controller (R190 and R190A)

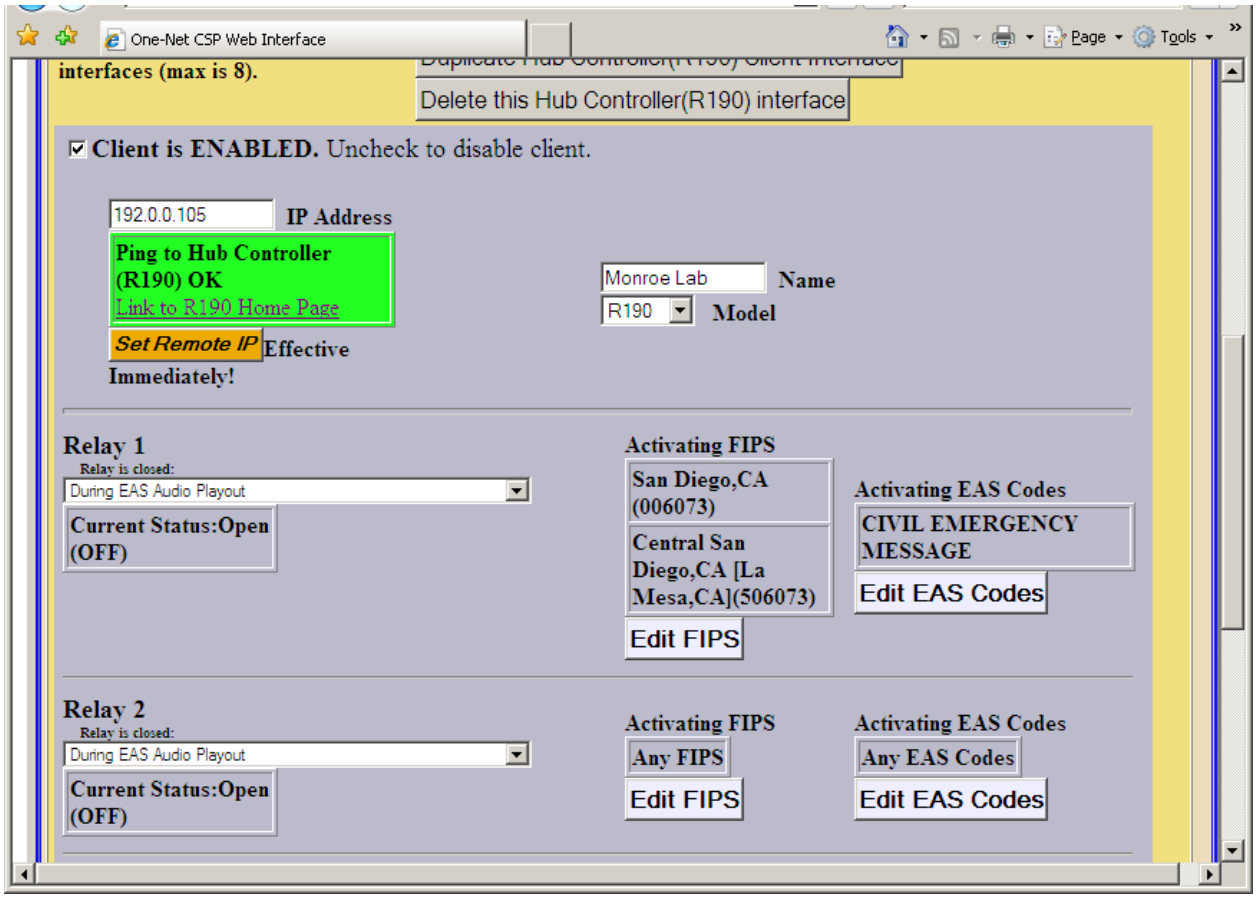
The One-Net can be used in conjunction with our Hub Controller the model R190 and the newer R190A for remote hub switching if local access channels are to be overridden during EAS alerts. This is accomplished through this LAN controlled device that has four independently controlled relays. Each relay can be programmed to activate by a choice of three triggers. In addition to the three triggers it can be setup to filter its activation by FIPS code(s) and EAS code(s). The One-Net can control up to 8 of these hub controllers.



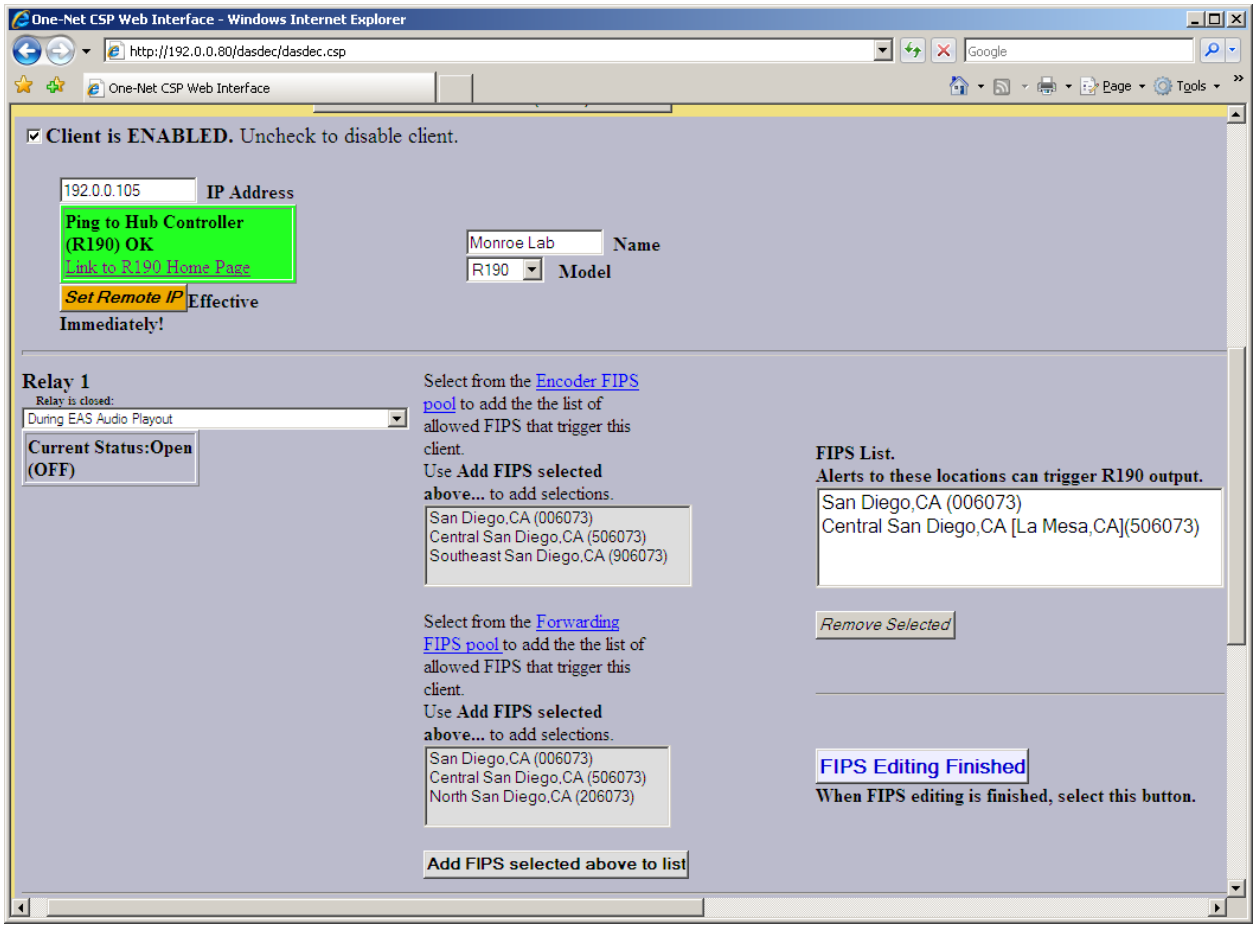
Note: Before enabling the Hub Controller, THE R190 MUST BE SET TO AN ADDRESS THAT IS WITHIN YOUR INTERNAL LAN. Follow the procedure included with the Hub Controller R190 for details.

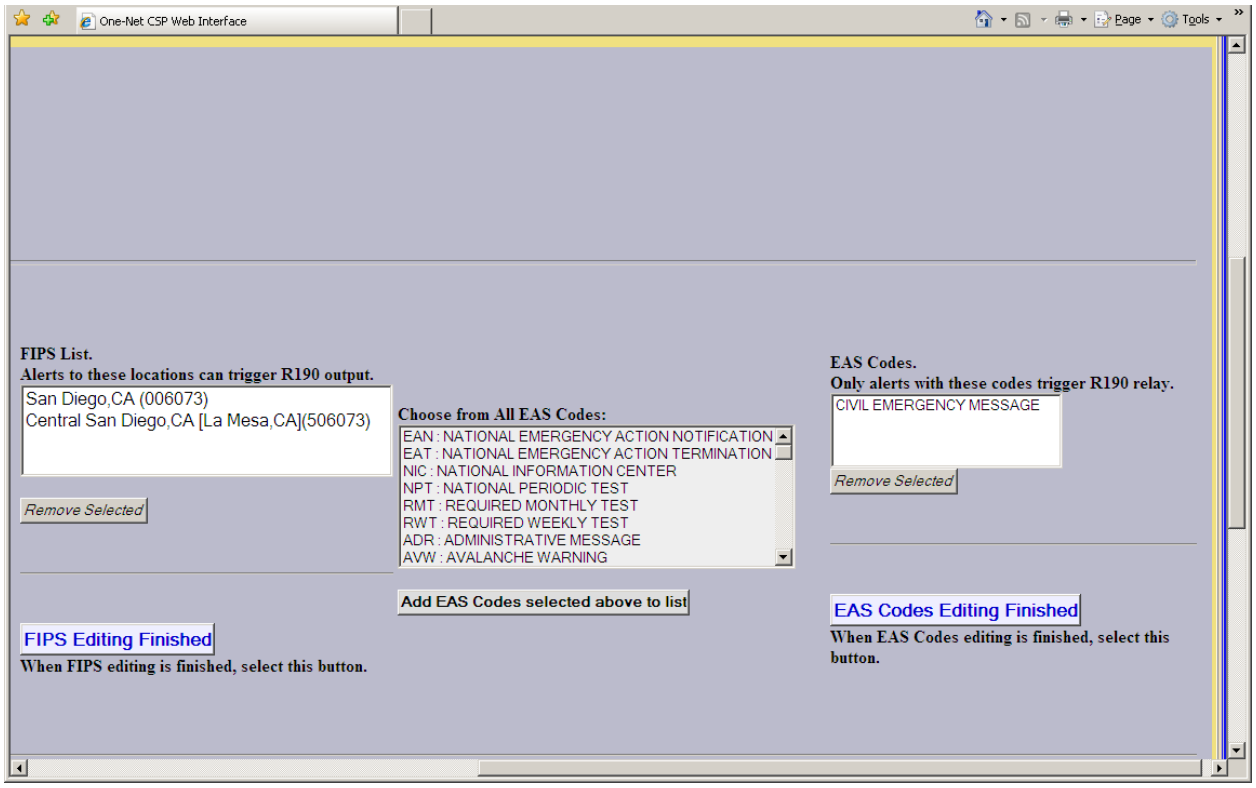
Enter the new address for the R190 as shown in the following screen and enable the client by placing a check mark in the box. The One-Net will attempt to ping the R190 and display the status. Verify that the status is OK.
Select the Model of R190 you are using. If you are using the R190A you can also program the password if desired.

Select the condition to close each relay that is required. Once that is selected the Activating FIPS and Activating EAS Codes boxes will be displayed. The default setting is “Any FIPS” and “Any EAS Codes” which triggers the relay when an alert is detected.



Relay activation can be programmed so that they only close when Alerts for specific FIPS areas or EAS codes are present. Click on the “Edit FIPS” button to select FIPS codes from the FIPS pools. When the desired FIPS codes are selected click the “Add FIPS selected above to the list” and they will be added to the FIPS list to the right. When finished, click on the “FIPS Editing Finished” button. Repeat this step for all of the required relays. The same process is used for editing the activating EAS codes.


One-Net CSP Web Interface - Windows Internet Explorer
http://192.0.0.80/dasdec/dasdec.csp
One-Net CSP Web Interface
Client is ENABLED. Uncheck to disable client.
192.0.0.105
IP Address
Ping to Hub Controller (R190) OK
Link to R190 Home Page
Set Remote IP
Effective Immediately!
Monroe Lab
Name
R190
Model
Relay 1
Relay is closed:
During EAS Audio Playout
Current Status:Open (OFF)
Select from the Encoder FIPS pool to add the the list of allowed FIPS that trigger this client.
Use Add FIPS selected above... to add selections.
San Diego,CA (006073)
Central San Diego,CA (506073)
Southeast San Diego,CA (906073)
FIPS List.
Alerts to these locations can trigger R190 output.
San Diego,CA (006073)
Central San Diego,CA [La Mesa,CA](506073)
Remove Selected
Select from the Forwarding FIPS pool to add the the list of allowed FIPS that trigger this client.
Use Add FIPS selected above... to add selections.
San Diego,CA (006073)
Central San Diego,CA (506073)
North San Diego,CA (206073)
FIPS Editing Finished
When FIPS editing is finished, select this button.
Add FIPS selected above to list


One-Net CSP Web Interface
FIPS List.
Alerts to these locations can trigger R190 output.
San Diego,CA (006073)
Central San Diego,CA [La Mesa,CA](506073)
Remove Selected
Choose from All EAS Codes:
EAN : NATIONAL EMERGENCY ACTION NOTIFICATION
EAT : NATIONAL EMERGENCY ACTION TERMINATION
NIC : NATIONAL INFORMATION CENTER
NPT : NATIONAL PERIODIC TEST
RMT : REQUIRED MONTHLY TEST
RWT : REQUIRED WEEKLY TEST
ADR : ADMINISTRATIVE MESSAGE
AVW : AVALANCHE WARNING
Add EAS Codes selected above to list
EAS Codes.
Only alerts with these codes trigger R190 relay.
CIVIL EMERGENCY MESSAGE
Remove Selected
FIPS Editing Finished
When FIPS editing is finished, select this button.
EAS Codes Editing Finished
When EAS Codes editing is finished, select this button.

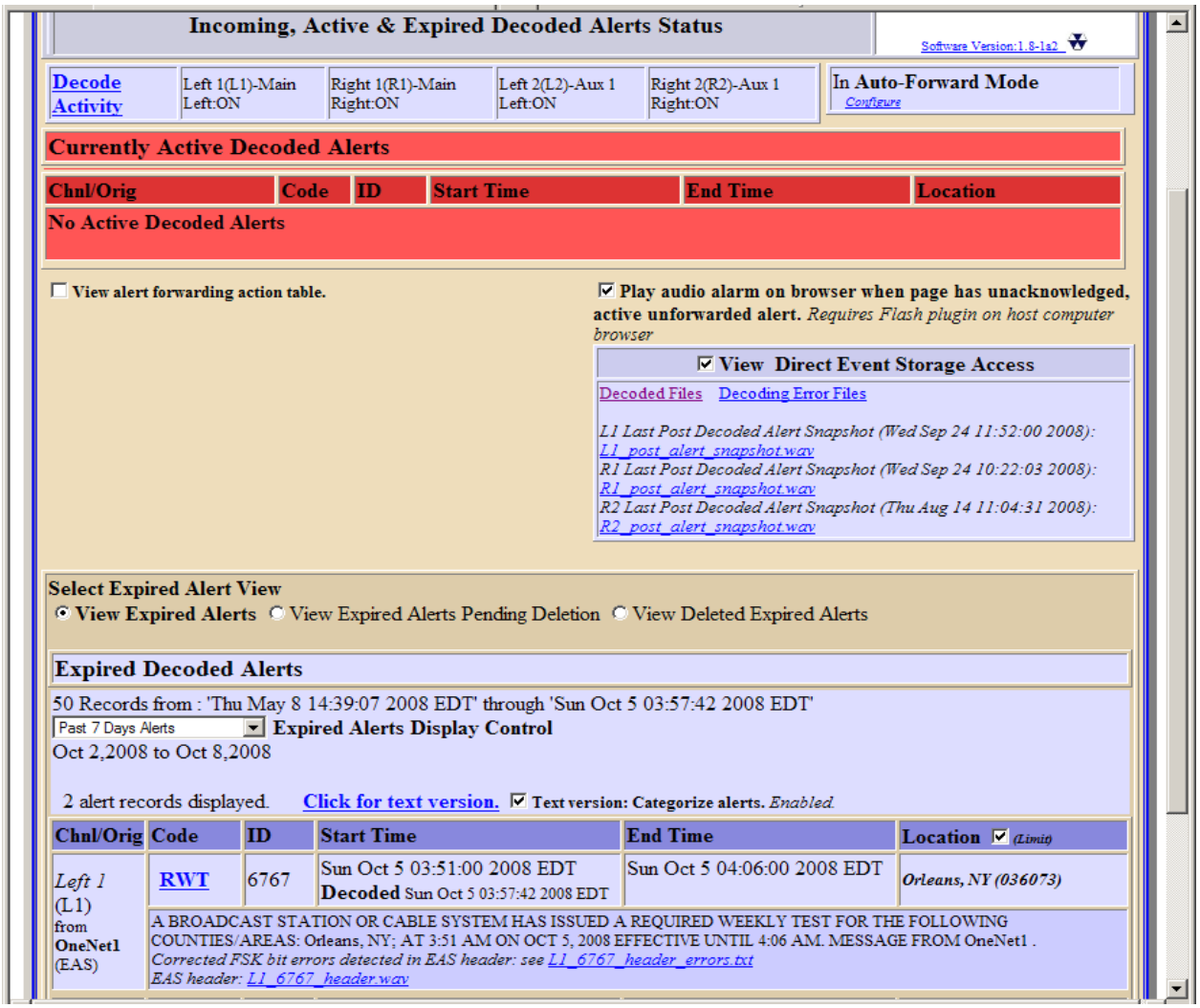
6. Decoder

The four choices on the Decoder page both bring up viewers of current and expired alerts. You can choose between **Incoming/Decoded Alerts**, **Forwarded Alerts, Originated & Forwarded Alerts,** and **All Alerts.** . These One-Net interfaces let you see exactly which alerts have been decoded and which have also been forwarded, helping you precisely audit EAS activity.

6.1. Decoded Alerts

The **Incoming, Active & Expired Alert Status** page displays two kinds of information about decoded EAS alerts. At the top of the page active EAS alert events are displayed. Below that is the list of Expired EAS alerts. Also, at the top of the page the current Forwarding Mode is displayed as either “Auto Forward Mode” or “Manual Forward Mode”.

The event status page can be printed out from the local host's printers, by using the Web browser's print button. This makes it easy to compile FCC paper documents for EAS test accounting.


Incoming, Active & Expired Decoded Alerts Status
Software Version:1.8-1a2
Decode Activity
Left 1(L1)-Main Left:ON
Right 1(R1)-Main Right:ON
Left 2(L2)-Aux 1 Left:ON
Right 2(R2)-Aux 1 Right:ON
In Auto-Forward Mode
Configure
Currently Active Decoded Alerts
Chnl/Orig
Code
ID
Start Time
End Time
Location
No Active Decoded Alerts
View alert forwarding action table.
Play audio alarm on browser when page has unacknowledged, active unforwarded alert. Requires Flash plugin on host computer browser
View Direct Event Storage Access
Decoded Files
Decoding Error Files
L1 Last Post Decoded Alert Snapshot (Wed Sep 24 11:52:00 2008):
L1_post_alert_snapshot.wav
R1 Last Post Decoded Alert Snapshot (Wed Sep 24 10:22:03 2008):
R1_post_alert_snapshot.wav
R2 Last Post Decoded Alert Snapshot (Thu Aug 14 11:04:31 2008):
R2_post_alert_snapshot.wav
Select Expired Alert View
View Expired Alerts
View Expired Alerts Pending Deletion
View Deleted Expired Alerts
Expired Decoded Alerts
50 Records from : 'Thu May 8 14:39:07 2008 EDT' through 'Sun Oct 5 03:57:42 2008 EDT'
Past 7 Days Alerts
Expired Alerts Display Control
Oct 2,2008 to Oct 8,2008
2 alert records displayed.
Click for text version.
Text version: Categorize alerts. Enabled.
Chnl/Orig
Code
ID
Start Time
End Time
Location
(Limit)
Left 1 (L1) from OneNet1 (EAS)
RWT
6767
Sun Oct 5 03:51:00 2008 EDT
Decoded Sun Oct 5 03:57:42 2008 EDT
Sun Oct 5 04:06:00 2008 EDT
Orleans, NY (036073)
A BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A REQUIRED WEEKLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 3:51 AM ON OCT 5, 2008 EFFECTIVE UNTIL 4:06 AM. MESSAGE FROM OneNet1 .
Corrected FSK bit errors detected in EAS header: see L1_6767_header_errors.txt
EAS header: L1_6767_header.wav

As can be seen from the example screenshot, every standard detail about the alert is presented in an easy to read table. In addition, the time the alert was decoded is displayed, as well as the time the alert was forwarded, if it was forwarded. Forwarded alerts are displayed on the **Forwarded Event Status** screen. See section 6.2.

Audio portion

If the alert has an audio message, it can be played on the One-Net internal speaker by clicking Play->Front Panel that appears inside the alert entry. Or you can play the audio file on your host computer through your web browser by clicking the provided Listen on Browser link. The host computer must be configured with a WAV file player. Alerts that did not have an audio message will not display the two audio interfaces.

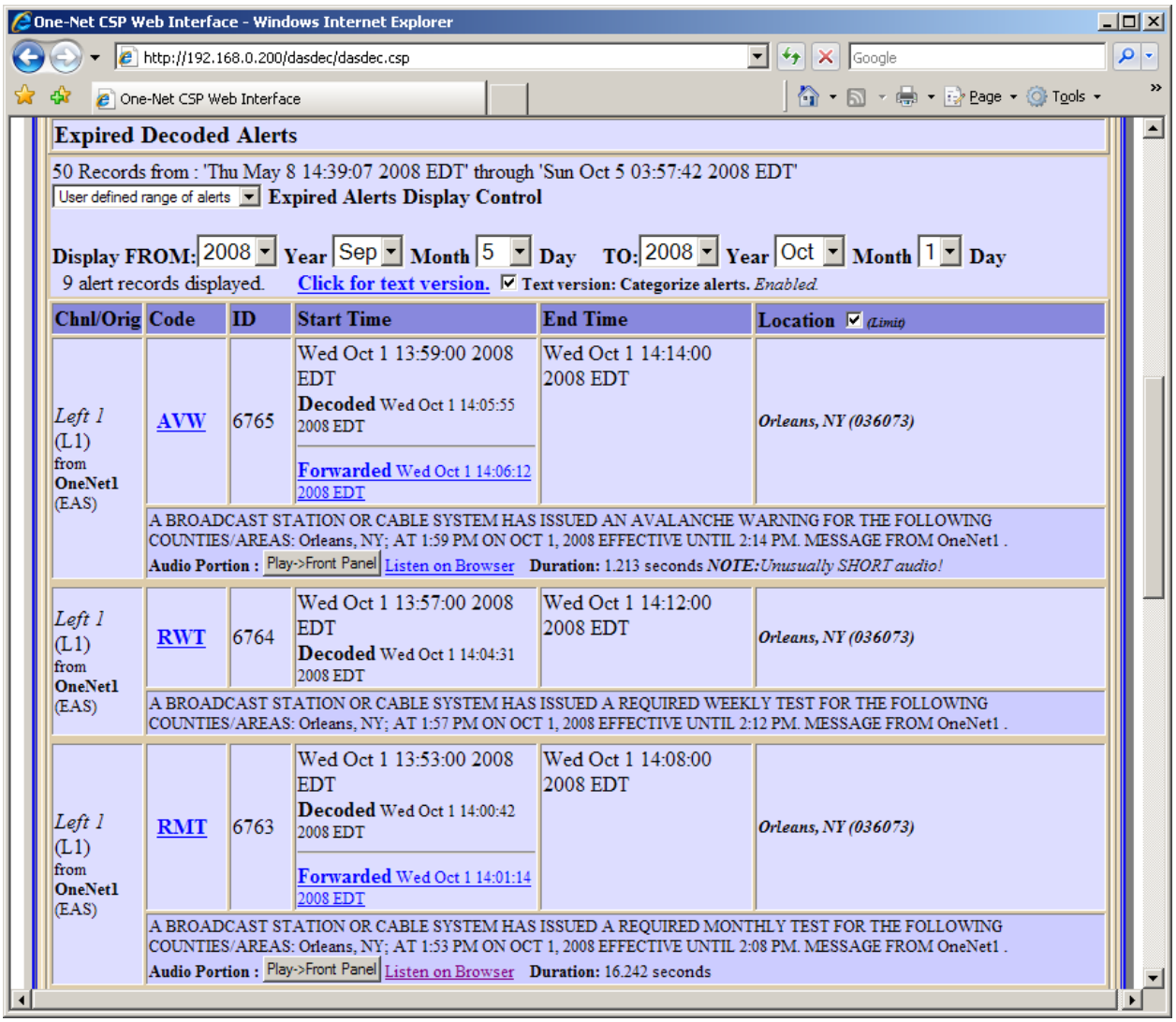
Active Decoded Alerts

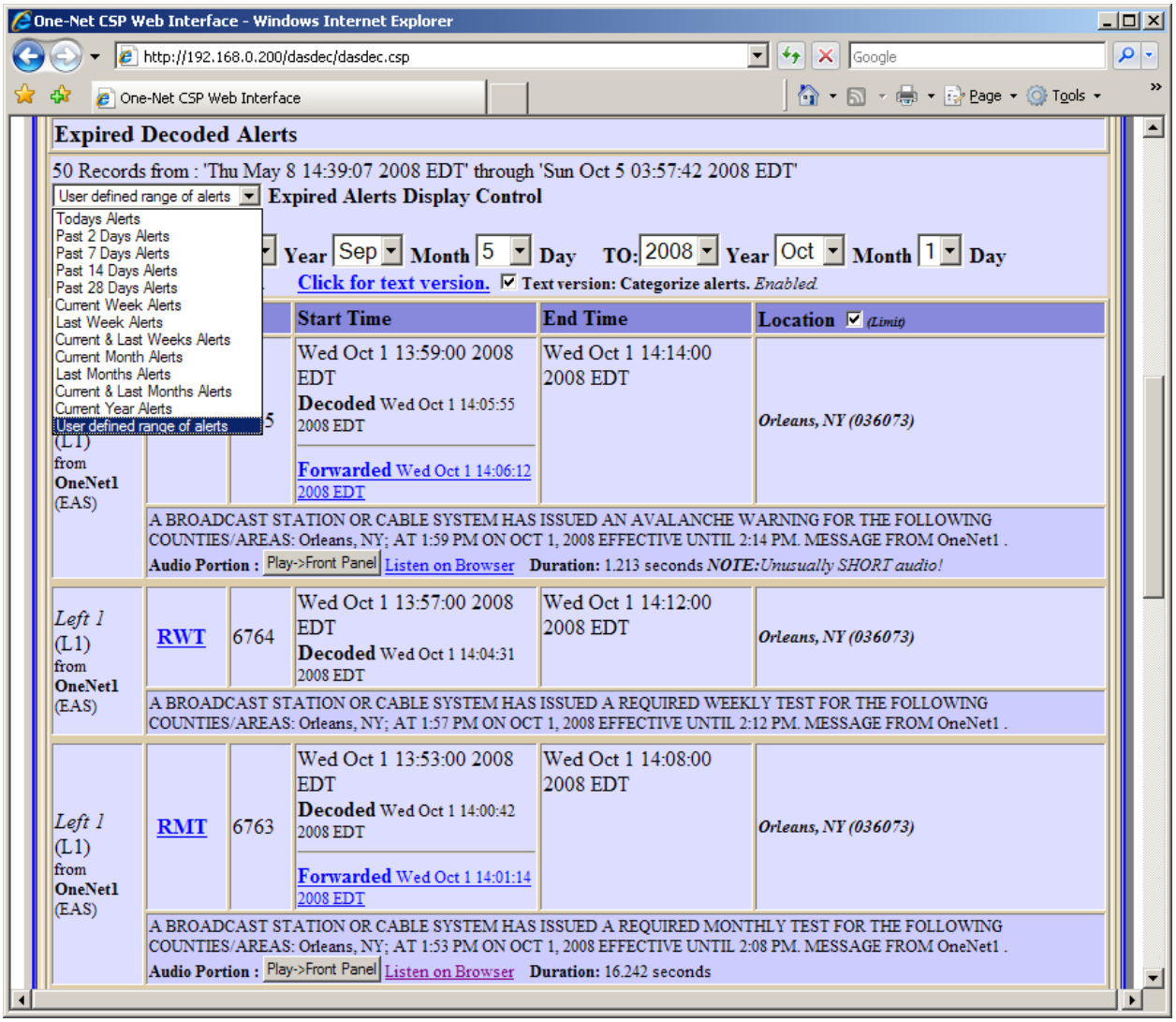
The Active event list displays all decoded EAS alerts that are currently in progress, that is, between the start and end time for the alert. An active event remains on the active list until it reaches its expiration time, as determined by the event end time, or until it is canceled by another event of the same type and for the same area, that redefines the event duration. Active events are moved to the expired event list as each one finishes. Active events that are not automatically forwarded present a button to allow manual forwarding. The example screen above shows the Manual Forward button for the active Severe Weather Warning. Click on this button to forward the alert. To review and edit the alert audio before forwarding, click on the Edit/Review button. This will bring up a page that allows you to play the original audio, select a new audio message from the local audio file list, and optionally, add an announcement to be played prior to the alert play out.

Expired Decoded Alerts

The Expired event list lets you examine past decoded alerts for any range of dates. The following screen shows an example of the expired alerts list for a selected date range. The next screen shows the other choices that you can select from to filter the desired range. A text version is also available and you can select to view it in date order, or in a categorized view.

To select a date range use the provided pull-down menu and choose a Year, Month, and Day for the From and To dates. The list will display all available data for each expired alert decoded within the selected time period. The actual decoded headers are stored on the One-Net, so this information is an accurate reflection of what the One-Net received. Because of its digital disk medium, a One-Net can archive an enormous number of expired events. The One-Net will automatically remove the oldest event descriptions as needed to reserve enough space for new alerts. The number of stored events is at a minimum in the thousands, so you do not need to worry about losing track of important archived information.


One-Net CSP Web Interface - Windows Internet Explorer
http://192.168.0.200/dasdec/dasdec.csp
One-Net CSP Web Interface
Expired Decoded Alerts
50 Records from : 'Thu May 8 14:39:07 2008 EDT' through 'Sun Oct 5 03:57:42 2008 EDT'
User defined range of alerts
Expired Alerts Display Control
Display FROM: 2008 Year Sep Month 5 Day TO: 2008 Year Oct Month 1 Day
9 alert records displayed.
Click for text version.
Text version: Categorize alerts. Enabled.
Chnl/Orig
Code
ID
Start Time
End Time
Location
Left 1 (L1) from OneNet1 (EAS)
AVW
6765
Wed Oct 1 13:59:00 2008 EDT
Decoded Wed Oct 1 14:05:55 2008 EDT
Forwarded Wed Oct 1 14:06:12 2008 EDT
Wed Oct 1 14:14:00 2008 EDT
Orleans, NY (036073)
A BROADCAST STATION OR CABLE SYSTEM HAS ISSUED AN AVALANCHE WARNING FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 1:59 PM ON OCT 1, 2008 EFFECTIVE UNTIL 2:14 PM. MESSAGE FROM OneNet1 .
Audio Portion : Play->Front Panel Listen on Browser Duration: 1.213 seconds NOTE:Unusually SHORT audio!
Left 1 (L1) from OneNet1 (EAS)
RWT
6764
Wed Oct 1 13:57:00 2008 EDT
Decoded Wed Oct 1 14:04:31 2008 EDT
Wed Oct 1 14:12:00 2008 EDT
Orleans, NY (036073)
A BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A REQUIRED WEEKLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 1:57 PM ON OCT 1, 2008 EFFECTIVE UNTIL 2:12 PM. MESSAGE FROM OneNet1 .
Left 1 (L1) from OneNet1 (EAS)
RMT
6763
Wed Oct 1 13:53:00 2008 EDT
Decoded Wed Oct 1 14:00:42 2008 EDT
Forwarded Wed Oct 1 14:01:14 2008 EDT
Wed Oct 1 14:08:00 2008 EDT
Orleans, NY (036073)
A BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A REQUIRED MONTHLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 1:53 PM ON OCT 1, 2008 EFFECTIVE UNTIL 2:08 PM. MESSAGE FROM OneNet1 .
Audio Portion : Play->Front Panel Listen on Browser Duration: 16.242 seconds


One-Net CSP Web Interface - Windows Internet Explorer
http://192.168.0.200/dasdec/dasdec.csp
One-Net CSP Web Interface
Expired Decoded Alerts
50 Records from : 'Thu May 8 14:39:07 2008 EDT' through 'Sun Oct 5 03:57:42 2008 EDT'
User defined range of alerts
Expired Alerts Display Control
Todays Alerts
Past 2 Days Alerts
Past 7 Days Alerts
Past 14 Days Alerts
Past 28 Days Alerts
Current Week Alerts
Last Week Alerts
Current & Last Weeks Alerts
Current Month Alerts
Last Months Alerts
Current & Last Months Alerts
Current Year Alerts
User defined range of alerts
Year Sep Month 5 Day TO: 2008 Year Oct Month 1 Day
Click for text version.
Text version: Categorize alerts. Enabled.
Start Time
End Time
Location
Wed Oct 1 13:59:00 2008 EDT
Decoded Wed Oct 1 14:05:55 2008 EDT
Forwarded Wed Oct 1 14:06:12 2008 EDT
Wed Oct 1 14:14:00 2008 EDT
Orleans, NY (036073)
A BROADCAST STATION OR CABLE SYSTEM HAS ISSUED AN AVALANCHE WARNING FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 1:59 PM ON OCT 1, 2008 EFFECTIVE UNTIL 2:14 PM. MESSAGE FROM OneNet1 .
Audio Portion : Play->Front Panel Listen on Browser Duration: 1.213 seconds NOTE:Unusually SHORT audio!
Left 1 (L1) from OneNet1 (EAS)
RWT
6764
Wed Oct 1 13:57:00 2008 EDT
Decoded Wed Oct 1 14:04:31 2008 EDT
Wed Oct 1 14:12:00 2008 EDT
Orleans, NY (036073)
A BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A REQUIRED WEEKLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 1:57 PM ON OCT 1, 2008 EFFECTIVE UNTIL 2:12 PM. MESSAGE FROM OneNet1 .
Left 1 (L1) from OneNet1 (EAS)
RMT
6763
Wed Oct 1 13:53:00 2008 EDT
Decoded Wed Oct 1 14:00:42 2008 EDT
Forwarded Wed Oct 1 14:01:14 2008 EDT
Wed Oct 1 14:08:00 2008 EDT
Orleans, NY (036073)
A BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A REQUIRED MONTHLY TEST FOR THE FOLLOWING COUNTIES/AREAS: Orleans, NY; AT 1:53 PM ON OCT 1, 2008 EFFECTIVE UNTIL 2:08 PM. MESSAGE FROM OneNet1 .
Audio Portion : Play->Front Panel Listen on Browser Duration: 16.242 seconds

6.2. Forwarded Event Status

This page is organized exactly like the Decoded Alerts Status page. It is divided into the same two regions: the top displays active forwarded alerts, while the bottom displays a selected range of expired forwarded alerts. This page presents the same detailed alert information about Forwarded Alerts as the Decoded Alert Status page. Active forwarded events cannot be forwarded again.

6.3. Originated and Forwarded Alerts

This page is organized exactly like the Decoded Alerts Status page. It is divided into the same two regions: the top displays active forwarded alerts, while the bottom displays a selected range of expired forwarded alerts. This page presents the same detailed alert information about Originated and Forwarded Alerts as the Decoded Alert Status page. Active forwarded events cannot be forwarded again.

6.4. All Alerts

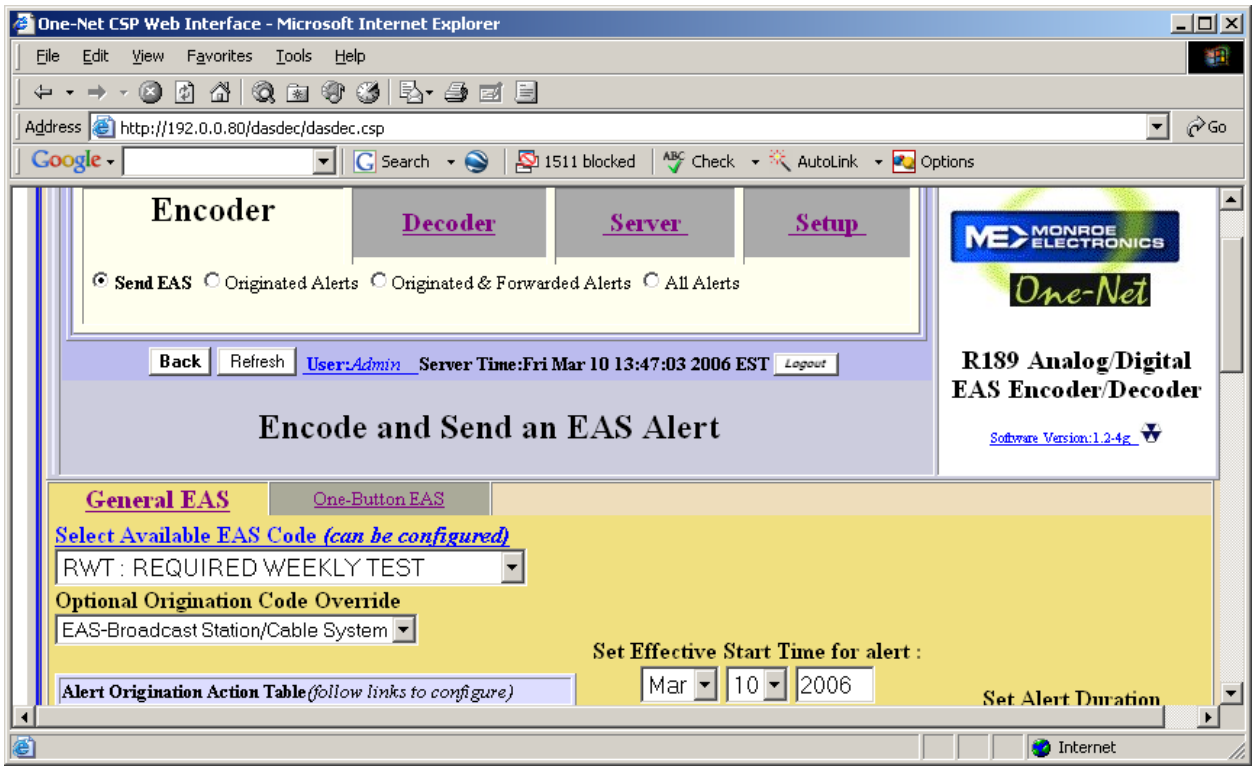
This page is organized exactly like the Decoded Alerts Status page. It is divided into the same two regions: the top displays active forwarded alerts, while the bottom displays a selected range of expired forwarded alerts. This page presents the same detailed alert information about All Alerts as the Decoded Alert Status page. Active forwarded events cannot be forwarded again.

7. Encoder

EAS alert encoding, called origination, is when the digital codes and alert audio tones and message defined by the EAS protocol, are assembled and played over a broadcast medium for which EAS decoders might be listening. The One-Net makes EAS encoding and alert origination easy, accurate, and quick. From a single, uncomplicated web page, EAS alerts can be constructed and issued.

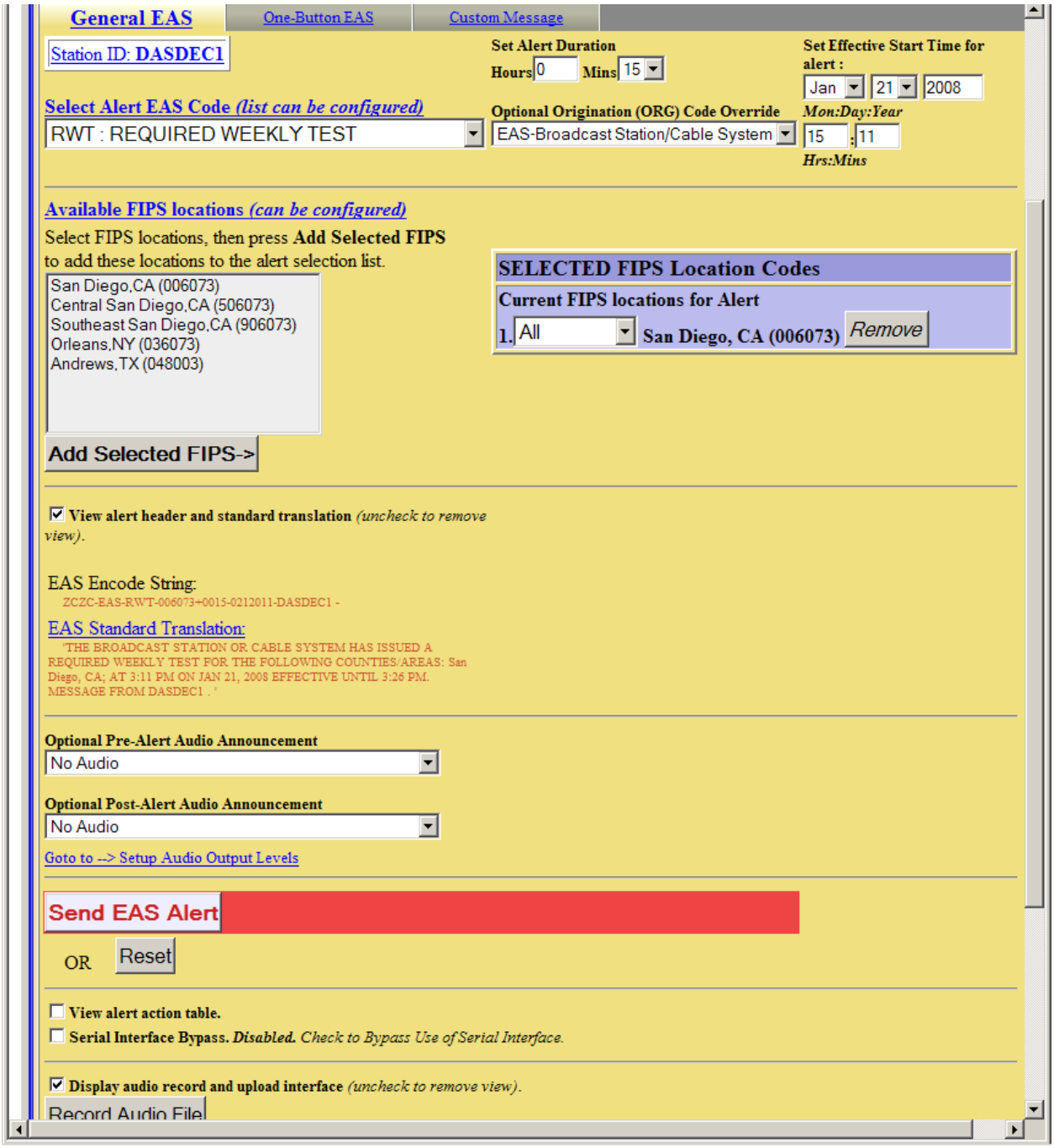
Only a One-Net that has been configured with a valid Encoder license key (see **Setup > Server**, section) will offer the encoding feature. Without a valid license key, the One-Net will not show the main **Encoder** menu tab (nor will it display the Setup > Encoder option button under the "Setup" main tab). There are some configuration tasks that need to be done on the Setup Encoder pages before you can use the One-Net encoder. Make sure your One-Net has been configured with **Setup > Encoder** prior to attempting EAS encoding.

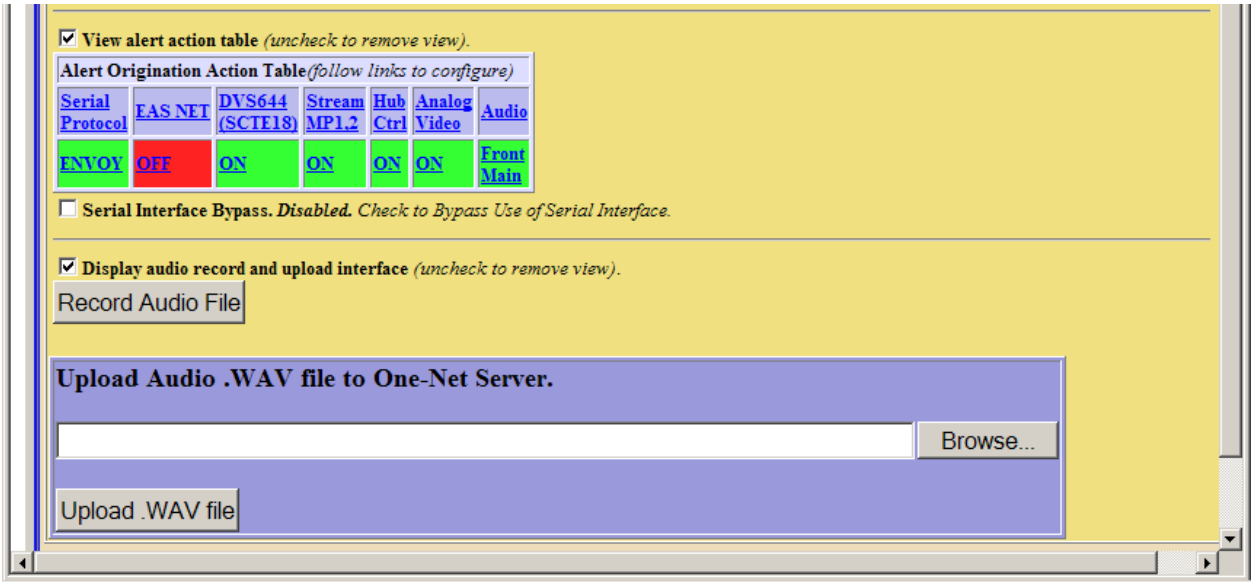
There are four choices on the **Encoder** page: **Send EAS** and **Originated Alerts, Originated & Forwarded Alerts,** and **All Alerts.**



7.1. Send EAS

When you select **Send EAS**, the **Encode and Send an EAS Alert** page is displayed. This page has two sub-page options: **General EAS** and **One-Button EAS**. Using the **One-button EAS** screen is a simple way to encode and issue weekly test alerts using a single mouse click. To encode general specific alerts, the **General EAS** page is used.


General EAS
One-Button EAS
Custom Message
Station ID: DASDEC1
Set Alert Duration
Hours 0 Mins 15
Set Effective Start Time for alert :
Jan 21 2008
Mon:Day:Year
15 :11
Hrs:Mins
Select Alert EAS Code (list can be configured)
RWT : REQUIRED WEEKLY TEST
Optional Origination (ORG) Code Override
EAS-Broadcast Station/Cable System
Available FIPS locations (can be configured)
Select FIPS locations, then press Add Selected FIPS to add these locations to the alert selection list.
San Diego,CA (006073)
Central San Diego,CA (506073)
Southeast San Diego,CA (906073)
Orleans,NY (036073)
Andrews,TX (048003)
Add Selected FIPS->
SELECTED FIPS Location Codes
Current FIPS locations for Alert
1. All San Diego, CA (006073) Remove
View alert header and standard translation (uncheck to remove view).
EAS Encode String:
ZCZC-EAS-RWT-006073+0015-0212011-DASDEC1 -
EAS Standard Translation:
'THE BROADCAST STATION OR CABLE SYSTEM HAS ISSUED A REQUIRED WEEKLY TEST FOR THE FOLLOWING COUNTIES/AREAS: San Diego, CA; AT 3:11 PM ON JAN 21, 2008 EFFECTIVE UNTIL 3:26 PM. MESSAGE FROM DASDEC1 . '
Optional Pre-Alert Audio Announcement
No Audio
Optional Post-Alert Audio Announcement
No Audio
Goto to --> Setup Audio Output Levels
Send EAS Alert
OR Reset
View alert action table.
Serial Interface Bypass. Disabled. Check to Bypass Use of Serial Interface.
Display audio record and upload interface (uncheck to remove view).
Record Audio File



7.1.1. General EAS

To construct and send an EAS alert, you need to set six items on the **General EAS** page:

- The EAS alert code;
- The starting time (effective time) of the alert;
- The alert duration
- The FIPS locations codes for the alert;
- The audio message, if any, for the alert.
- The audio announcement message, if any that will precede and follow the alert.

The values for these items are presented using pull-down and selection menus.

Select EAS Code
To set the EAS code, select from the codes presented under the **Select Available EAS Code** pull-down menu. The codes shown are the ones that were added to the list on the **Setup >Encoder** screen. If the list needs to be corrected, use the link Select Available EAS Code to return to the **Setup > Encoder** screen. Configure Available EAS Types for Encoder as needed. See section 5.9. Then return to the **Encoder >Send EAS >General page** to continue constructing the alert. **NOTE:** Only specially configured One-Net's will allow origination of the National alerts Emergency Action Notification & Termination (EAN & EAT).

Serial Interface Status and Optional Override
Directly under the EAS code selection menu is an active hyperlink that displays the current status of the Origination serial interface CG protocol. This will inform the user if the serial interface is offline or online, and which protocol is selected if online. It also displays if the protocol has been bypassed by the checkbox toggle below. The active link points to the **Setup >Video/CG** page. The link can be followed to quickly change the CG settings used during alert origination.

Check to Bypass Use of Serial Interface
If you check this box, the current serial protocol will not be used during the alert origination.

Set Effective Time for alert
The default effective time is the current time. You can set the effective (starting) time for the alert.

Set Alert Duration
The default duration is 15 minutes. You can change the alert duration

Set FIPS locations

An EAS alert must be issued for specific locations. Until FIPS location codes are entered, the One-Net will not present a **Send Alert?** Display. Instead, a message ****Need to Add FIPS Codes**** will display in place of selected FIPS codes. Also, a message "**Alert NOT Ready to Send: Specify FIPS**" is displayed at the lower right on the page.

- To set the FIPS location(s) for the alert code, select from the list presented in the box under **Available FIPS Locations**. The codes shown are the ones that were added on the **Setup >Encoder**> **General** screen.
- If the list needs to be corrected, use the link **Available FIPS Locations** to return to the **Setup > Encoder > General** screen. Configure **Available Encoder FIPS Locations** for Encoder as needed. See section 5.9.1. Then return to the **Encoder >Send EAS >General page** to continue constructing the alert.
- For each location, Select one or more FIPS, and click **Add Selected FIPS**. Up to 31 FIPS location codes may be selected using the provided FIPS selection table.
- As you build the list of current FIPS locations for the alert, these locations display on the right. The sub-region of the FIPS location can be edited for every chosen location. If a different sub-region is desired, select one of the choices presented in the pull-down menu displayed to the left of the FIPS code.
- If a FIPS location needs to be removed from the list for the alert, click the **Remove** option that is presented with every chosen FIPS entry.
- After you select the FIPS location(s), the "Alert NOT Ready..." message changes to a **Send Alert?** Button. The alert can be sent immediately if no audio message is needed. However, often the alert should have Pre-Alert Audio Announcement or an Audio File.
- Pushing the Reset button will restart the entire process.

Select Alert Audio (Optional)

Use this pull-down menu to select a prerecorded audio file to play during the alert. This option is not presented for Required Weekly Test (RWT). Audio files can be added to this list in two ways. WAV files can be uploaded using the Upload interface described below. Or, audio files can be directly recorded into the One-Net by using button described below. When an audio file is selected, its duration will appear, along with a link to play the file on the host browser, as well as two buttons. The **Preview Selected** button will play the file over the One-Net internal speaker. The **Delete Selected** button will allow file deletion from the audio list.

Record Audio File (Optional)
When the **Record Audio File** button is pushed a new, temporary page is displayed. This page provides controls for recording audio with a microphone.

- The microphone must be connected to the main microphone input jack at the back of the One-Net. To record, provide a unique file name for the audio file by entering the name in the "**New Audio Filename**" text field. (A unique file name is one not already used in the provided "**Select Audio File**" selection box. If you use an existing name, the original file by that name will be overwritten.)
- Push the Record Audio button and speak.
- Click on the **Stop Audio Recording** button when complete.
- The file will appear in the Audio File selection box. It may be previewed on the One-Net using the "**Preview Selected"** button. The duration of this file must be under two (2) minutes. The One-Net will automatically cut off recording at 2 minutes in order to insure this limit.
- Once the file is correct, select it from the Audio File selection box. In the example above, the file floodevac.wav has been selected.

Select Pre-Alert Audio Announcement (Optional)
Use the pull-down menu to select a prerecorded audio announcement to precede the actual alert announcement. The selected file has the duration displayed.

Select Post-Alert Audio Announcement (Optional)
Use the pull-down menu to select a prerecorded audio announcement to play after the actual alert announcement. The selected file has the duration displayed.

Upload Audio .WAV file to One-Net Server.
You can upload a pre-recorded digital audio file (in the .wav format) from your local host computer file system using the provided **Upload Audio .WAV file to One-Net server** interface at the bottom of the page. The browse button will use your browser's file system navigator to find an audio file. Once the file is selected, click **Upload WAV file.** The file will now appear in the Audio file lists.

Send Alert

Once the alert has been constructed correctly, click on the Send Alert? Button. The One-Net will present a confirmation page with a review of the encoding details.

Review of Prepared Alert
Examine the confirmation page prior to sending the alert. If the alert is correct, it can be sent by clicking the **Yes, Send Alert**! button. Or you can cancel the send alert with the **Cancel Alert** button. If the alert send is canceled, the One-Net will go back to the **Encode and Send an EAS Alert** page. Change the alert information before attempting to send the alert.

If the EAS alert data is accurate, and you are ready to issue the alert, click on the **Yes, Send Alert!** button. The alert will be "originated", that is, played, out of the selected One-Net audio output ports. The originated alert audio ports are selected from either the **Setup Encoder > Audio** or the **Setup Audio > Encoder** screens. See section 5.6.3.

During the origination time, the front panel red LED will be lit and the audio of the alert will play from the built-in One-Net internal speaker. For the duration of the issued alert, the One-Net will periodically crawl the alert text across the front panel LCD. The LCD text for the letter "O" will precede the alert, indicating a One-Net originated alert. The details of this alert will be viewable on the screen Encoder Originated Alert Status [**Encoder > Originated Alerts**].

7.1.2. One-Button EAS

The One-Net allows required weekly tests to be preconfigured on the **Setup > Encoder > Required Tests** page. Once these have been configured, the **Encoder > Send EAS > One-Button EAS** page will present a button to issue the alert. This makes it simple to send these test alerts, without having to select details. The alert start time is set to be effective immediately. The serial interface status and bypass are also present as in the **General EAS** screen. See section 7.1.1

7.2. Originated Alerts

The Encoder Originated Alert Status page is organized just like the Decoder Decoded Alert Status page. You can look at the details of every alert originated from the One-Net. The following types of alerts are displayed:

- Scheduled Originated Alerts. Scheduled alerts occur when random Weekly tests are automatically scheduled and when specific alerts are sent starting at a future time.
- Currently Active Originated Alerts
- Expired Originated Alerts

You can select specific dates for expired alerts using the FROM and TO date selection pull-down menus or the other choices shown under the Decoded Alerts Section 6.1.

8. Testing One-Net Encoding and Decoding

A good way to test the One-Net is to have a second sound card installed and run an audio cable between the output of the second audio card into the input of the first card. Make sure the origination audio out is set to play over the auxiliary audio output and that one decoder is operational on the Main audio input (use **Setup > Audio > Decoder**). Turn off forwarding audio toggles. Then run the Encoder and send the alert. The One-Net will both send and decode the alert.

9. Server

The Server pages present all kinds of system status and helpful information.

There are three choices on the Server tab:

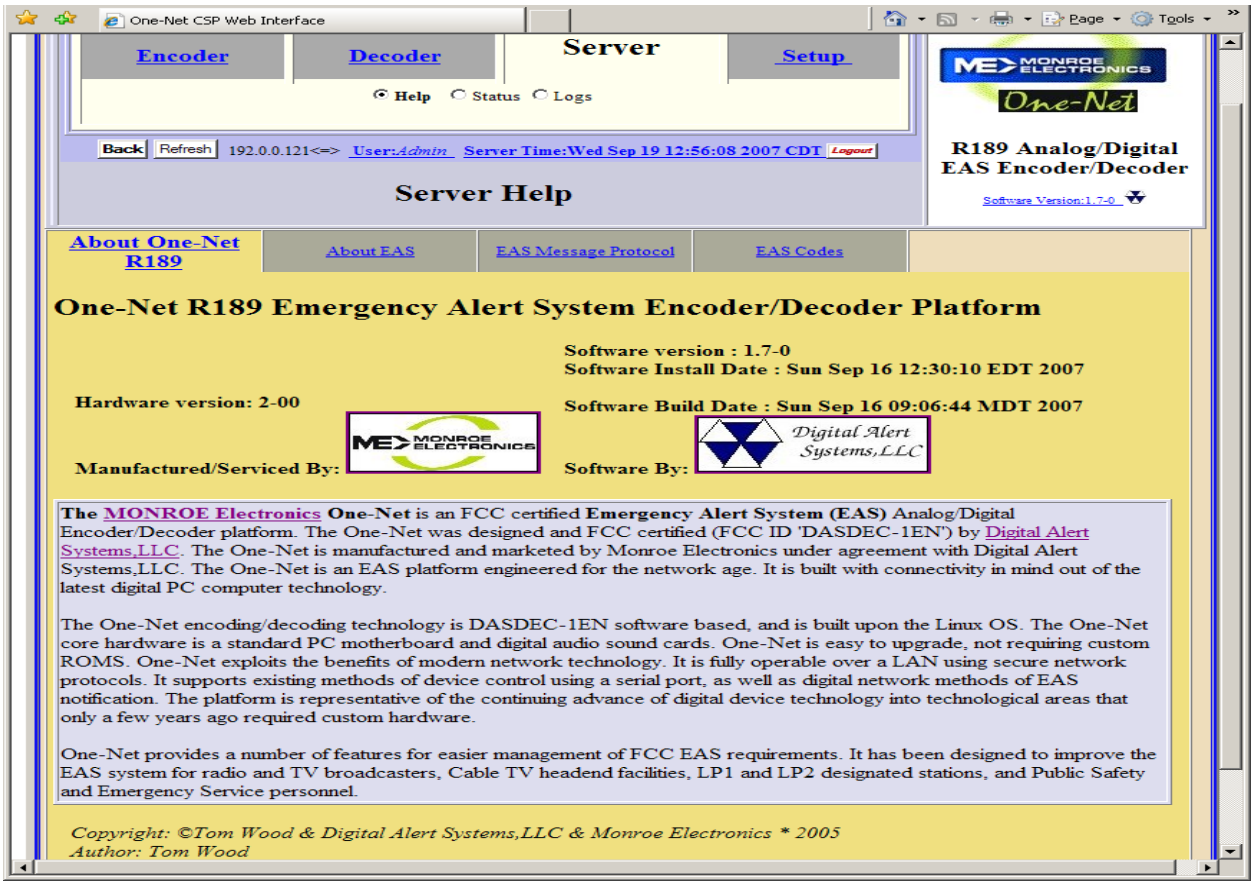
Help **Status** **Logs**

9.1. Server > Help: Server Help

The **Server Help** page displays information about the One-Net, EAS, EAS Message Protocol, and EAS Codes.

9.1.1. About One-Net: One-Net Emergency Alert System Encoder/Decoder Platform

Presents information about the installed One-Net software and about Monroe Electronics and Digital Alert Systems, LLC.


One-Net CSP Web Interface
Encoder
Decoder
Server
Setup
Help
Status
Logs
Back
Refresh
192.0.0.121<=>
User:Admin
Server Time:Wed Sep 19 12:56:08 2007 CDT
Logout
Server Help
R189 Analog/Digital EAS Encoder/Decoder
Software Version:1.7-0
About One-Net R189
About EAS
EAS Message Protocol
EAS Codes
One-Net R189 Emergency Alert System Encoder/Decoder Platform
Software version : 1.7-0
Software Install Date : Sun Sep 16 12:30:10 EDT 2007
Hardware version: 2-00
Software Build Date : Sun Sep 16 09:06:44 MDT 2007
Manufactured/Serviced By:
Software By:
The MONROE Electronics One-Net is an FCC certified Emergency Alert System (EAS) Analog/Digital Encoder/Decoder platform. The One-Net was designed and FCC certified (FCC ID 'DASDEC-1EN') by Digital Alert Systems,LLC. The One-Net is manufactured and marketed by Monroe Electronics under agreement with Digital Alert Systems,LLC. The One-Net is an EAS platform engineered for the network age. It is built with connectivity in mind out of the latest digital PC computer technology.
The One-Net encoding/decoding technology is DASDEC-1EN software based, and is built upon the Linux OS. The One-Net core hardware is a standard PC motherboard and digital audio sound cards. One-Net is easy to upgrade, not requiring custom ROMS. One-Net exploits the benefits of modern network technology. It is fully operable over a LAN using secure network protocols. It supports existing methods of device control using a serial port, as well as digital network methods of EAS notification. The platform is representative of the continuing advance of digital device technology into technological areas that only a few years ago required custom hardware.
One-Net provides a number of features for easier management of FCC EAS requirements. It has been designed to improve the EAS system for radio and TV broadcasters, Cable TV headend facilities, LP1 and LP2 designated stations, and Public Safety and Emergency Service personnel.
Copyright: ©Tom Wood & Digital Alert Systems,LLC & Monroe Electronics * 2005
Author: Tom Wood

9.1.2. About EAS: The Emergency Alert System

Presents information about the Emergency Alert System: purpose, operation, management, your responsibility as a broadcaster, and the future of EAS and One-Net.

9.1.3. EAS Message Protocol

Presents information about the EAS protocol from the FCC.

9.1.4. EAS Codes: EAS Code Table

Presents a list of the EAS event codes that are presently authorized, both national and state.

9.2. Server > Status: One-Net Server Status

The **One-Net Server Status Main** page displays a summary of status information about the One-Net on a single page. The Platform ID, System Uptime, Decoder and Other Server Status, Disk Usage and SSH DSA Public Encryption Key are displayed. This page is a convenient way to see at a glance the state of the decoder channels and the basic encoder and decoder configuration.

9.3. Server > Logs: Server Logs

The **Server Logs** screen has six sub-pages: Web Session Log, Operation Log, Operating System Log, Security Log, Boot Log, and Email Log.

9.3.1. Web Session Log: One-Net Emergency Alert System Encoder/Decoder Platform

Presents dated information about user access to the One-Net. Two settings are available. If the Today's log checkbox is checked, then this page will always show the Web session log for the current day. To view archived web session log files, uncheck the box. Then select a log for a specific date. You can then show the log for the previous or the next day. Log files a day old or more past can be deleted using the provided delete button. This page can be refreshed by clicking on the Refresh button at the bottom of the page to reveal new information.

9.3.2. Operation Log

Presents dated information about the One-Net Operation. This interface works the same as the one for the Web session log. All important EAS events will be shown here.

9.3.3. Operating System Log

Presents the last 500 lines of the Linux system System Log.

9.3.4. Security Log

Presents the last 500 lines of the Linux system Security Log.

9.3.5. Boot Log

Presents the last 500 lines of the Linux system Boot Log.

9.3.6. Email Log

Presents the last 1000 lines of the Email Log.

10. One-Net Peripherals

The One-Net will in time support many peripheral devices, from character generators to printers. In the first release, the One-Net can replace several other EAS encoder/decoder units, depending upon the peripheral hardware to which they have been connected.

10.1. Vela NDU

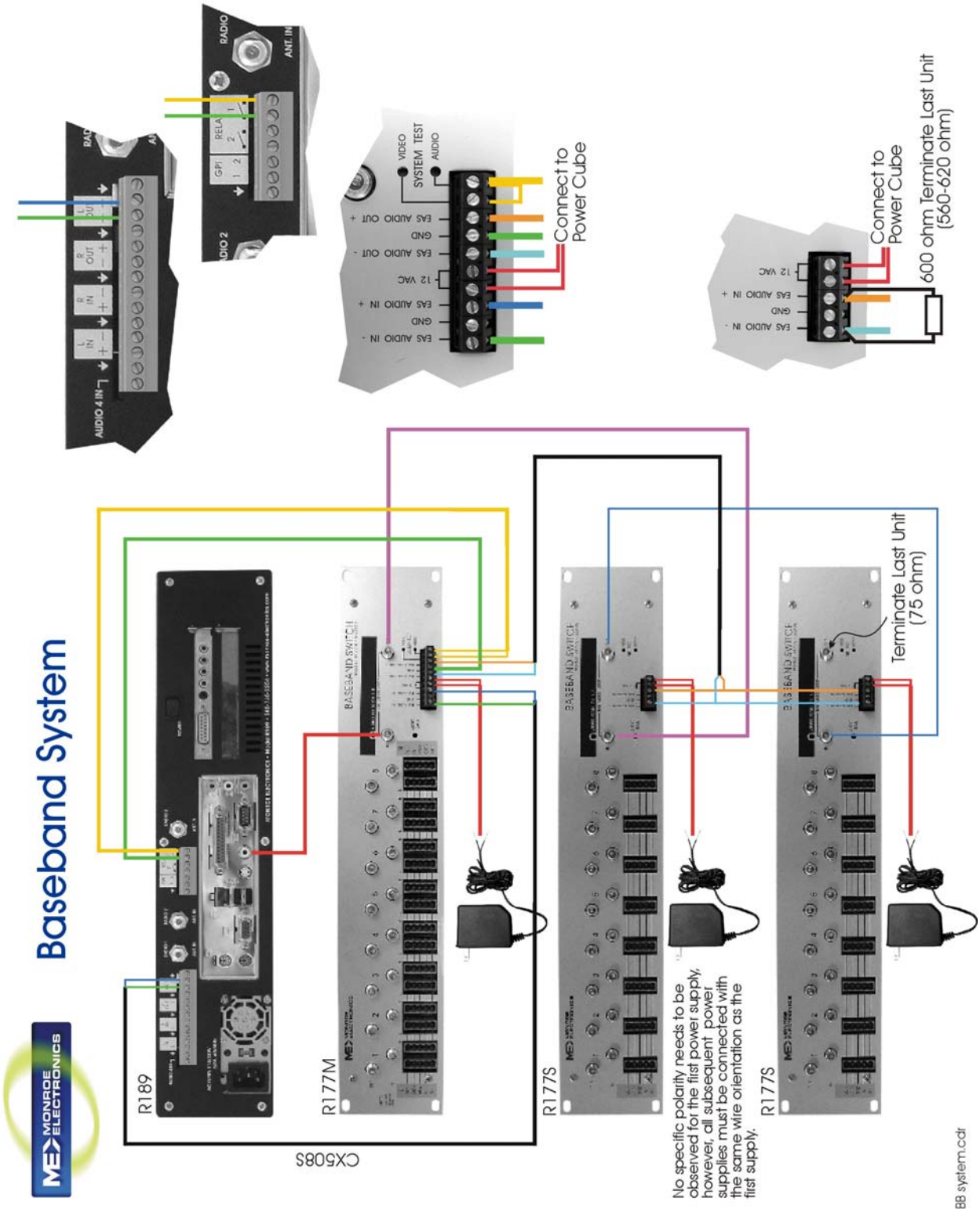
The Vela NDU 710 is a sophisticated character generator controller and general messaging system from Vela Broadcast. It comes with a complete EAS management system that controls a TFT-911 EAS encoder/decoder. The One-Net can replace a TFT-911 in this system. It can be connected via a Null modem cable from the NDU serial port to the One-Net serial port. The One-Net alert audio output must be wired to the selected NDU audio input port. The One-Net CG setting must be set to TFT. After that, the NDU will run normally without further configuration. For details on the Vela NDU 701, refer to the literature at www.vela.com.

10.2. Other character generators

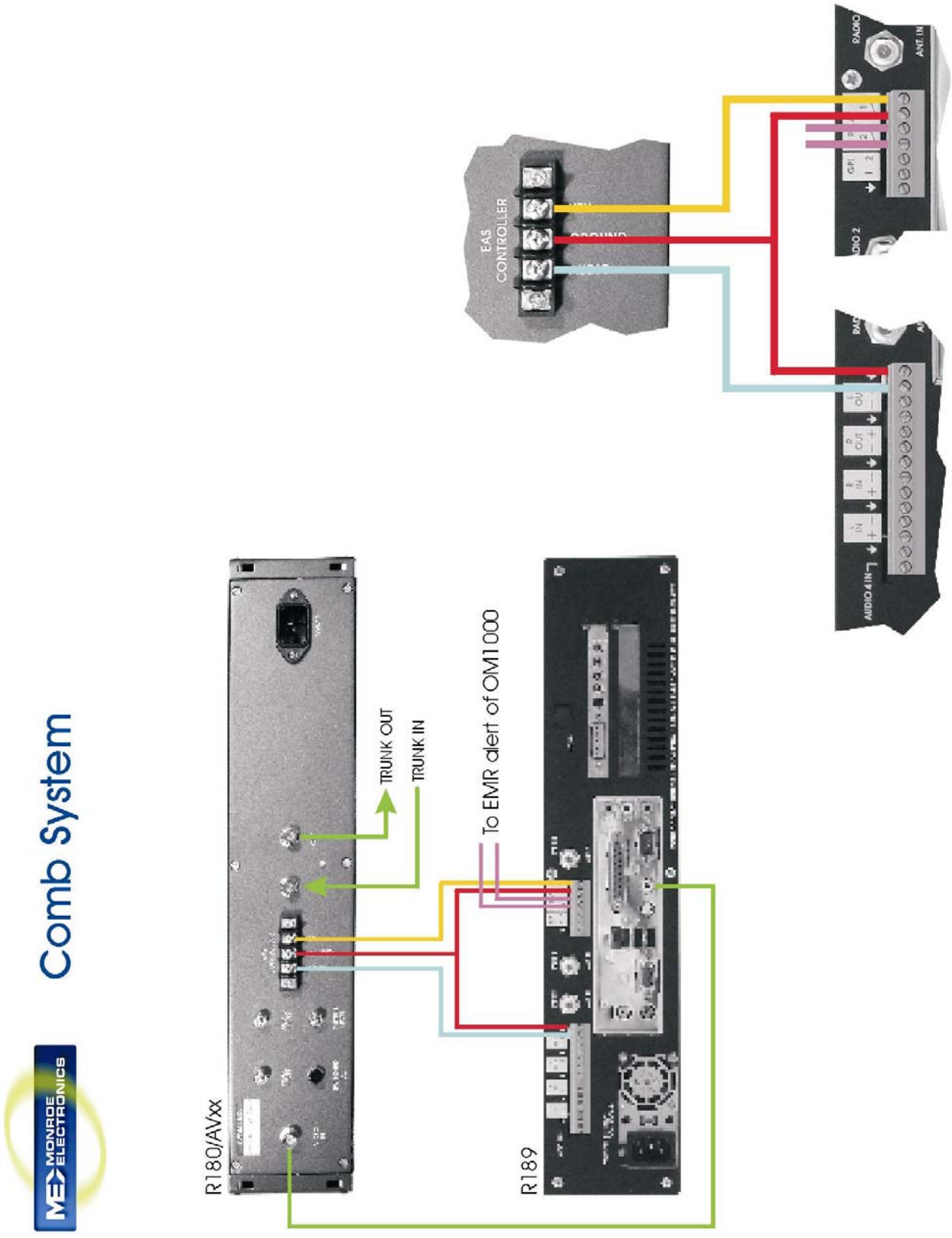
Any character generator that can operate the standard TFT 911 EAS serial control protocol can use a One-Net. A Null modem cable from the CG serial port must be connected to the One-Net serial port.
The One-Net can replace systems that operate Chyron CODI character generators. The One-Net supports both the analog CODI as well as the Digibox CODI.

11. Connection Diagrams

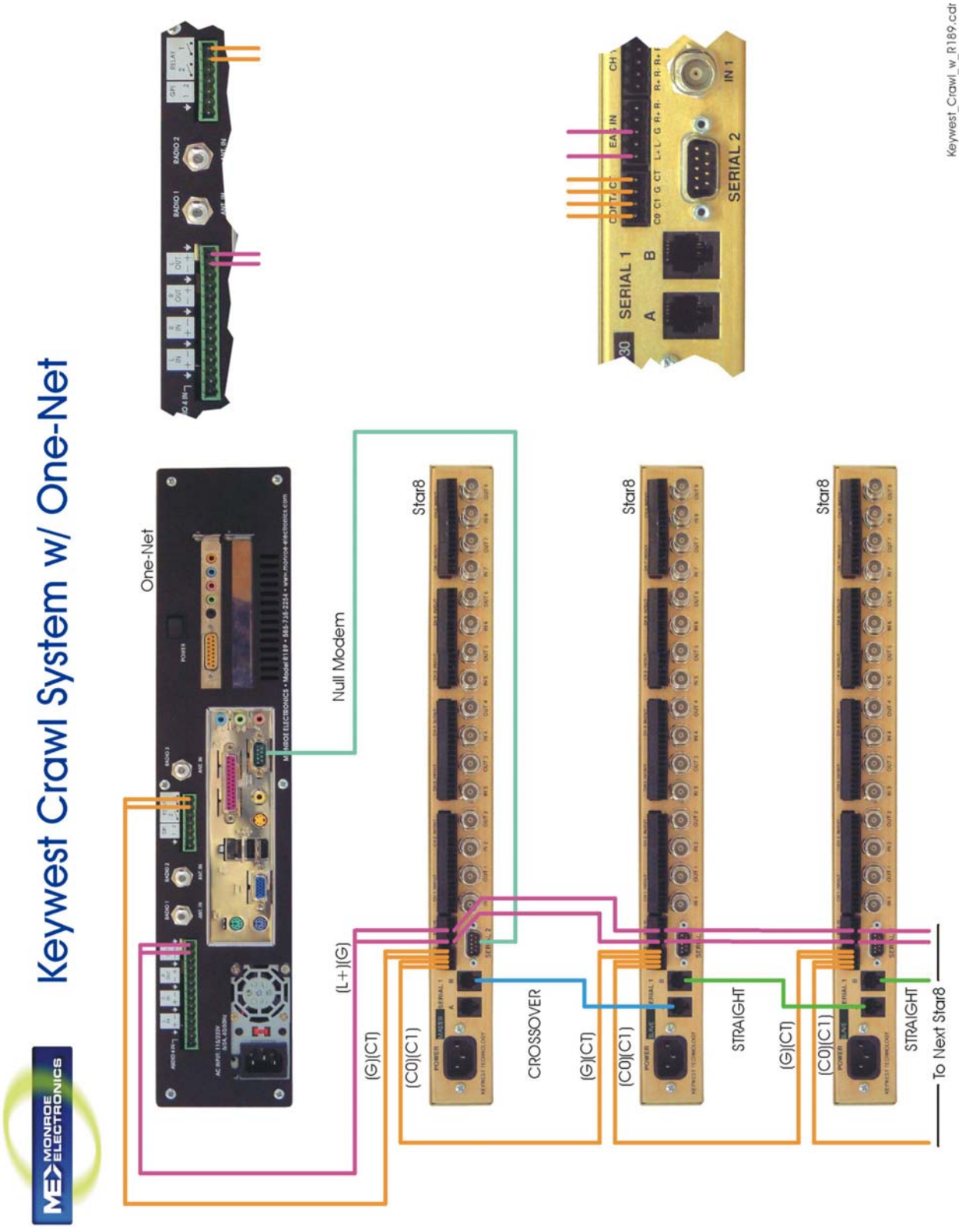
11.1. Baseband System


Baseband System
MONROE ELECTRONICS
R189
R177M
R177S
R177S
CX5085
Connect to Power Cube
Connect to Power Cube
600 ohm Terminate Last Unit (560-620 ohm)
Terminate Last Unit (75 ohm)
No specific polarity needs to be observed for the first power supply, however, all subsequent power supplies must be connected with the same wire orientation as the first supply.
BB system.cdr

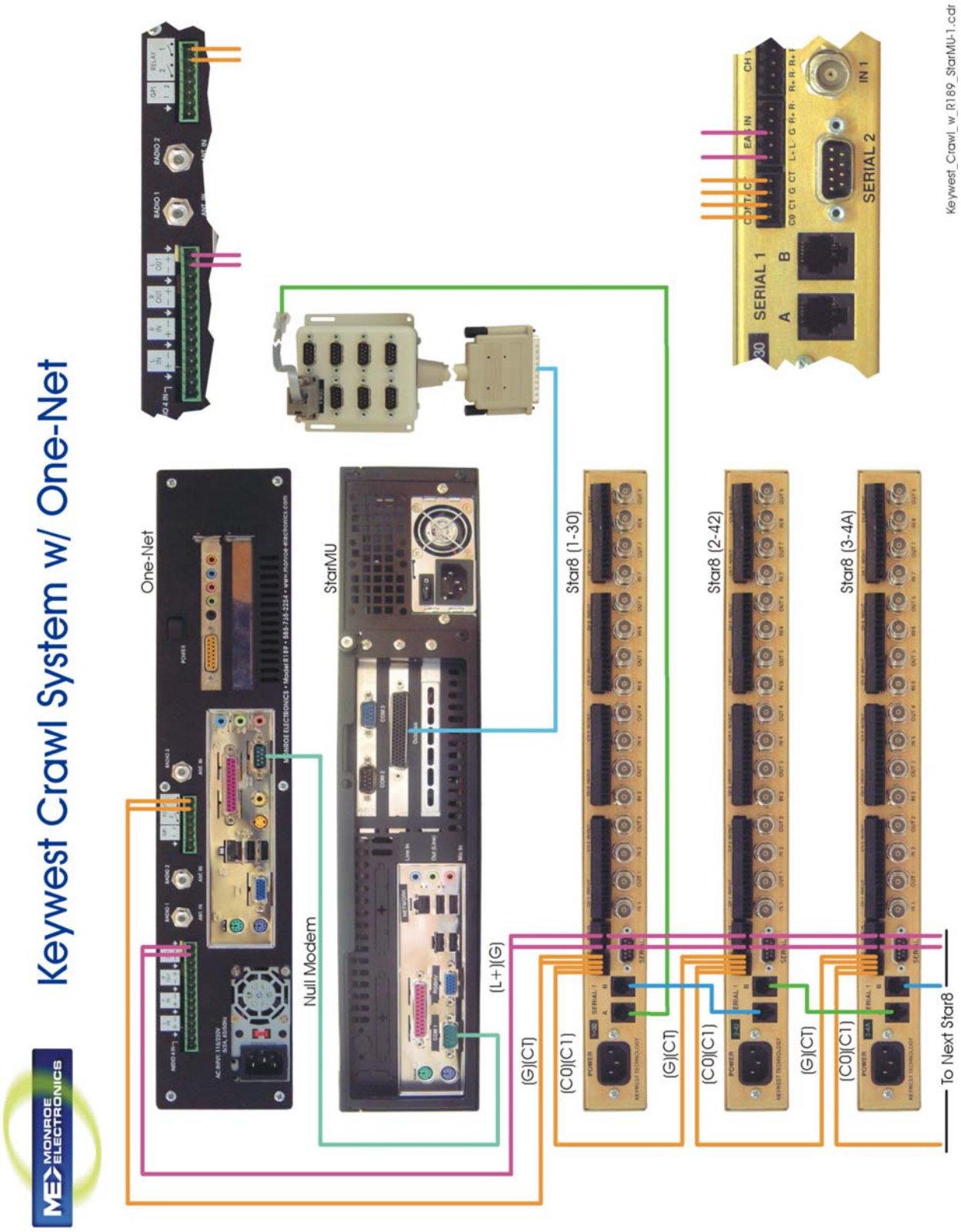
11.2. Comb System



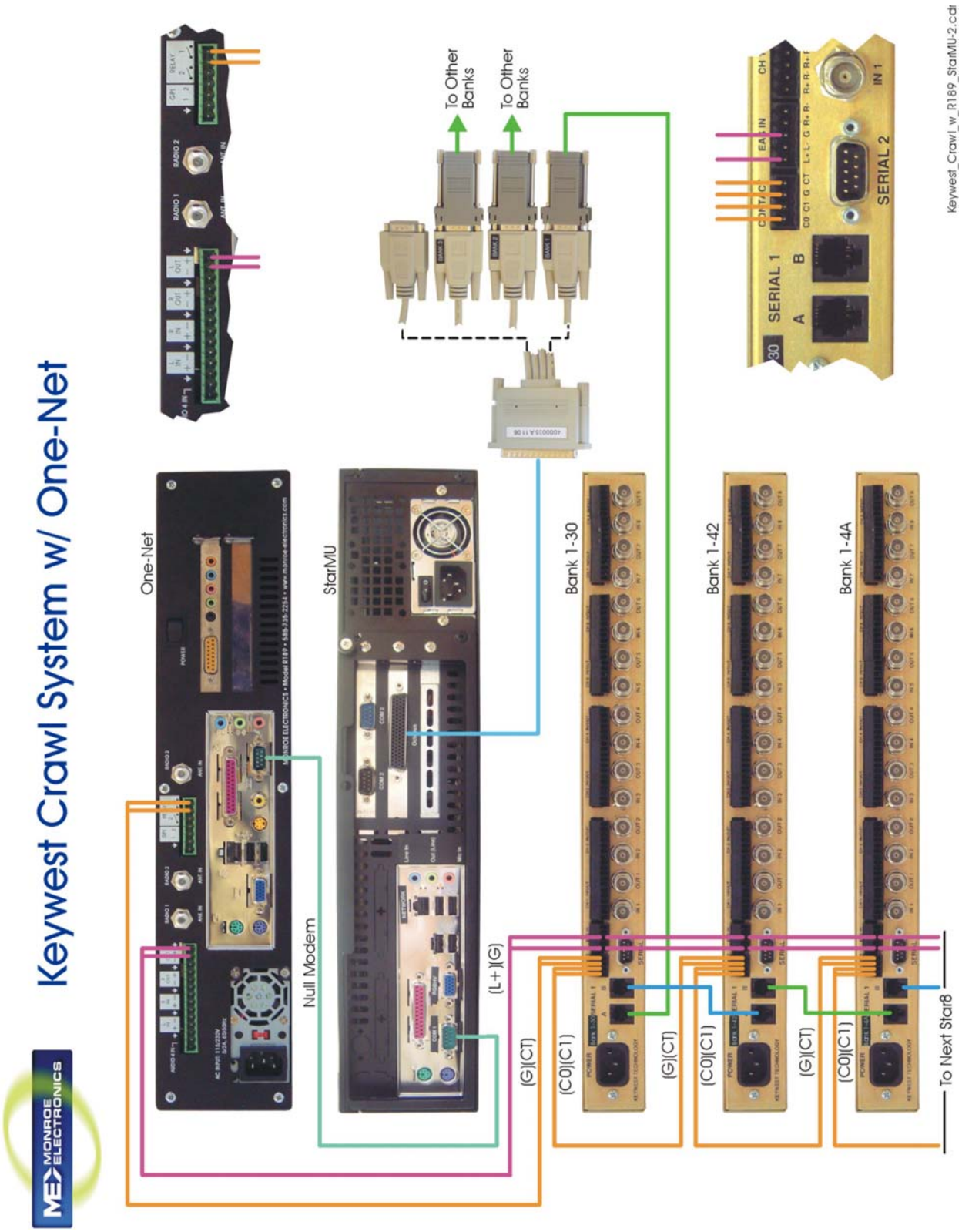
11.3. KeyWest Crawl System



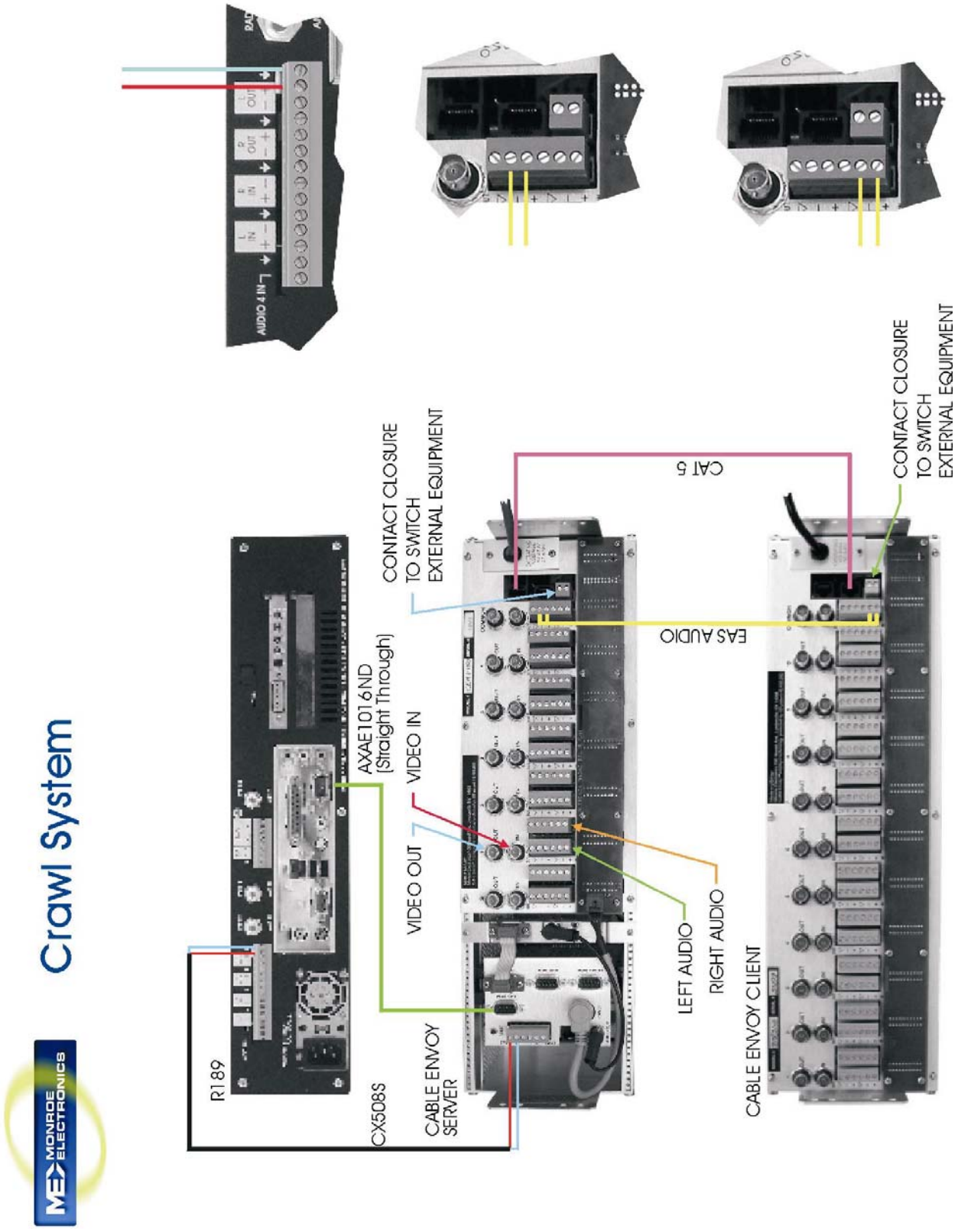
11.4. KeyWest Crawl System with Starmu



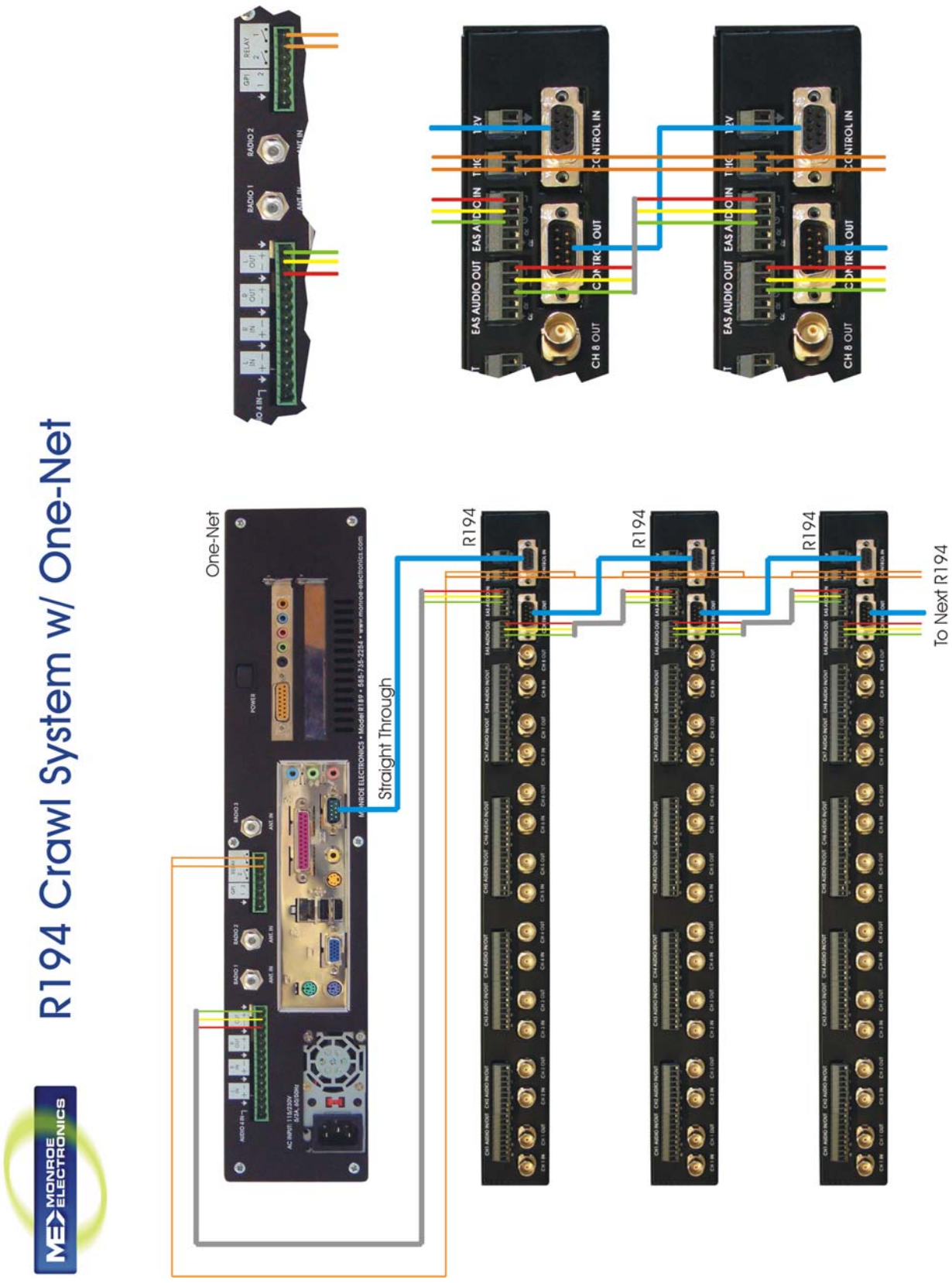
11.5. KeyWest Crawl System with Starmu



11.6. Cable Envoy Crawl System



11.7. R194 Crawl System



12. Appendix

The One-Net encodes the EAS messages per FCC rules for the EAS protocol. The EAS protocol from the FCC is described as follows (printed directly from the FCC ruling).

The EAS uses a four-part message for an emergency activation of the EAS. The four parts are; Preamble and EAS Header Codes, audio Attention Signal, message, and, Preamble and EAS End Of Message Codes.

The Preamble and EAS Codes must use Audio Frequency Shift Keying at a rate of 520.83 bits per second to transmit the codes. Mark frequency is 2083.3 Hz and space frequency is 1562.5 Hz. Mark and space time must be 1.92 milliseconds. Characters are ASCII seven bit characters as defined in ANSI X3.4-1977 ending with an eighth null bit (either 1 or 0) to constitute a full eight-bit byte.

The Attention Signal must be made up of the fundamental frequencies of 853 and 960 Hz. The two tones must be transmitted simultaneously. The Attention Signal must be transmitted after the EAS header codes.

The message may be audio, video or text.

The ASCII dash and plus symbols are required and may not be used for any other purpose. Unused characters must be ASCII space characters. FM or TV call signs must use a slash ASCII character number 47 (/) in lieu of a dash.

The EAS protocol, including any codes, must not be amended, extended or abridged without FCC authorization. The EAS protocol and message format are specified in the following representation. Examples are provided in FCC Public Notices.

[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(one second pause)
[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(one second pause)
[PREAMBLE]ZCZC-ORG-EEE-PSSCCC+TTTT-JJJHHMM-LLLLLLLL-
(at least a one second pause)
(transmission of 8 to 25 seconds of Attention Signal)
(transmission of audio, video or text messages)
(at least a one second pause)
[PREAMBLE]NNNN
(one second pause) [PREAMBLE]NNNN
(one second pause) [PREAMBLE]NNNN
(at least one second pause)

[PREAMBLE] This is a consecutive string of bits (sixteen bytes of AB hexadecimal [8 bit byte 10101011]) sent to clear the system, set AGC and set asynchronous decoder clocking cycles. The preamble must be transmitted before each header and End Of Message code.

ZCZC- This is the identifier, sent as ASCII characters ZCZC to indicate the start of ASCII code.

ORG- This is the Originator code and indicates who originally initiated the activation of the EAS. These codes are specified in paragraph (d) of this section.

EEE- This is the Event code and indicates the nature of the EAS activation. The codes are specified in paragraph (e) of this section. The Event codes must be compatible with the codes used by the NWS Weather Radio Specific Area Message Encoder (WRSAME).

PSSCCC- This is the Location code and indicates the geographic area affected by the EAS alert. There may be 31 Location codes in an EAS alert. The Location code uses the Federal Information Processing Standard (FIPS) numbers as described by the U.S. Department of Commerce in National Institute of Standards and Technology publication FIPS PUB 6-4. Each state is assigned an SS number as specified in paragraph (f) of this section. Each county and some cities are assigned a CCC number. A CCC number of 000 refers to an entire State or Territory. P defines county subdivisions as follows: 0 = all or an unspecified portion of a county, 1 = Northwest, 2 = North, 3 = Northeast, 4 = West, 5 = Central, 6 = East, 7 = Southwest, 8 = South, 9 = Southeast. Other numbers may be designated later for special applications. The use of county subdivisions will probably be rare and generally for oddly shaped or unusually large counties. Any subdivisions must be defined and agreed to by the local officials prior to use.

+TTTT- This indicates the valid time period of a message in 15 minute segments up to one hour and then in 30 minute segments beyond one hour; i.e., +0015, +0030, +0045, +0100, +0430 and +0600.

JJJHHMM- This is the day in Julian Calendar days (JJJ) of the year and the time in hours and minutes (HHMM) when the message was initially released by the originator using 24 hour Universal Coordinated Time (UTC).

LLLLLLLL- This is the identification of the broadcast station, cable system, MDS/MMDS/ITFS station, NWS office, etc., transmitting or retransmitting the message. These codes will be automatically affixed to all outgoing messages by the EAS encoder.

NNNN- This is the End of Message (EOM) code sent as a string of four ASCII N characters.

The only originator codes are:

Originator	ORG
Code Broadcast station or cable system	EAS
Civil authorities	CIV
National Weather Service	WXR
Primary Entry Point System	PEP

The following Event (EEE) codes are presently authorized:

Nature of Activation	Event Codes
National Codes (Required):	
Emergency Action Notification	EAN (National only)
Emergency Action Termination	EAT (National only)
National Information Center	NIC
National Periodic Test	NPT
Required Monthly Test	RMT
Required Weekly Test	RWT
State and Local Codes (Optional):	
Administrative Message	ADR
Avalanche Warning	AVW
Avalanche Watch	AVA
Blizzard Warning	BZW
Child Abduction Emergency	CAE
Civil Danger Warning	CDW
Civil Emergency Message	CEM
Coastal Flood Warning	CFW
Coastal Flood Watch	CFA
Dust Storm Warning	DSW
Earthquake Warning	EQW
Evacuation Immediate	EVI
Fire Warning	FRW
Flash Flood Warning	FFW
Flash Flood Watch	FFA
Flash Flood Statement	FFS
Flood Warning	FLW
Flood Watch	FLA
Flood Statement	FLS
Hazardous Materials Warning	HMW
High Wind Warning	HWW
High Wind Watch	HWA
Hurricane Warning	HUW
Hurricane Watch	HUA

Hurricane Statement	**HLS**
Law Enforcement Warning	**LEW**
Local Area Emergency	**LAE**
Network Message Notification	**NMN**
911 Telephone Outage Emergency	**TOE**
Nuclear Power Plant Warning	**NUW**
Practice/Demo Warning	**DMO**
Radiological Hazard Warning	**RHW**
Severe Thunderstorm Warning	**SVR**
Severe Thunderstorm Watch	**SVA**
Severe Weather Statement	**SVS**
Shelter in Place Warning	**SPW**
Special Marine Warning	**SMW**
Special Weather Statement	**SPS**
Tornado Warning	**TOR**
Tornado Watch	**TOA**
Tropical Storm Warning	**TRW**
Tropical Storm Watch	**TRA**
Tsunami Warning	**TSW**
Tsunami Watch	**TSA**
Volcano Warning	**VOW**
Winter Storm Warning	**WSW**
Winter Storm Watch	**WSA**